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The Importance Of Soft Skills In The Workplace As Perceived By Community College Instructors And Industries

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THE IMPORTANCE OF SOFT SKILLS IN THE WORKPLACE AS PERCEIVED BY COMMUNITY COLLEGE INSTRUCTORS AND INDUSTRIES

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Soft skills include communication skills, problem-solving skills, conflict resolution, working well with other people, and ensuring customer satisfaction. Employers need employees who have adequate technical skills but who also have soft skills. There is limited information about the perceptions of which soft skills are needed in the workplace. This study attempted to close the gap in the literature concerning the perceptions of instructors and employers in the area of soft skills in the workplace.

For this study, the Soft Skills Survey for Instructors and Employers was used to gather the perceptions of information technology instructors and employers in five community college districts of northeastern Mississippi concerning the importance of soft

skills in the workplace. Sixteen instructors and 17 employers participated in this study answering the online survey with a 4-point Likert-type scale.

A statistically significant difference was found between the perceptions of the instructors and the perceptions of the employers on four of the soft skills listed on the survey. These soft skills were "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately." The instructors placed a higher importance on these soft skills than did the employers. The reasons for this can be attributed to the differences between the classroom setting and the workplace. There was no statistically significant difference between the perceptions of the importance of the other 21 soft skills listed on the survey.

This study concluded that instructors teach the skills students need to get and keep a job, while employers are more concerned with the skills needed to perform the task at hand. This study provides a baseline for research on soft skills in the workplace. Recommendations for further research include using the Soft Skills Survey for Instructors and Employers in different educational settings and in other areas of the United States.

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CHAPTER I

INTRODUCTION

To compete in the workplace of today, students must learn the high-level technical skills that are expected for positions in their field as well as the employability skills that will allow them to keep these positions or advance to better ones (Echternacht & Wen, 1997). Before the Industrial Revolution, physical labor was the requirement of a quality worker. After the revolution, a person's hands, eyes, and ears did much of the work. Today, a quality employee needs mental skills such as problem-solving skills and thinking skills (Hunt, 1995). In the past, the term *skill* solely referred to a specific manual operation. The term now means any practice, form of knowledge, or way of constituting productive labor (Urciuoli, 2008).

Raj (2008) stated that hard skills are the technical and administrative skills required in the workplace that are relatively easy to observe and measure. Soft skills, including communication, teamwork, problem solving, and conflict resolution, are ingrained behavior patterns that are hard to quantify and to teach. Soft skills are necessary for college-bound students as well as for those seeking a position in the working world directly out of high school. Hard skills and soft skills are both important skills to have in the working world.

Personal characteristics such as a good work ethic, dependability, and positive attitudes will ensure that students are successful in college and/or in the workplace (Poole & Zahn, 1993). Good work attitudes, values, and habits are important to both workers and employers (Brauchle & Azam, 2004). Good work habits have long been crucial in the business world (Szabo, 1991). American businesses demand communication skills, interpersonal skills, team player skills, ethics, creativity, an ability to value diversity, responsiveness, and a willingness to change. Many employers seek applicants who already possess these skills because they believe that they can train employees in the technical skills needed to perform the job but soft skills training requires resources such as time and money (Buhler, 2001). Employers sometimes seek graduates with soft skills obtained during study and work experience rather than degree-specific knowledge and often opt to hire graduates from any discipline (Raybould & Anderson, 2005). Employers need employees who are reliable, responsible problem-solvers with good social skills who have the ability to work on a team (Robinson, 2000). In the workplace, aptitude and attitude are equally important (Cline, 2005).

As technology in the workplace has increased, businesses in the United States have become concerned that high school students are not being taught the skills needed to keep up with the workplace changes. There is an increasingly large gap between the skills individuals have and the skills needed in the labor force (Barker, 2000). The gap between the skills employees have and the skills employers require should be the responsibility of education, businesses, and government (Wilhelm, 2002). Educational institutions, employers, and the individuals themselves can attempt to remedy the skills gap while

government agencies could fund the programs (Rotundo & Sackett, 2004). Curriculum frameworks should include national skills standards that link the skills taught in the classroom with a variety of occupational clusters. Workplace skills can be reinforced by employee training in workshops and seminars. Students must understand how to apply the skills taught in class to a real work setting. Cognitive abilities, workforce basic skills, communication organizing, planning, and problem analysis are all very important skills along with occupation-specific knowledge and personal qualities. According to Wilhelm (2002), these essential soft skills are the requirements for high-performance work settings that add value and encourage productivity in the U.S. economy.

Statement of the Problem

There is limited information about which soft skills are of the highest relevance to employers in the information technology (IT) field and whether these skills are identified to students to help them prepare for employment (Snell, Snell-Siddle, & Whitehouse, 2003). Kim, Hsu, and Stern (2006) stated that in the United States, over 10 million people work in positions related to information systems/information technology (IS/IT). The kinds of skills that are most current and most needed in the IS/IT field and whether these skills are taught in the classroom are important to know. Kim et al. examined IS/IT skills gaps by administering a survey to investigate the perceived importance of IS/IT courses, information technologies, and critical IS/IT issues. The survey results were compared with IS course offerings by accredited business schools in the northeastern United States and IT staffing surveys and reports. The results of this study indicated that project

management is a subject area that is considered a highly important skill area but is not adequately covered by IS program curricula within the geographic area being studied.

U.S. employers view the incoming workforce as truly lacking basic academic skills as well as applied skills such as professionalism, work ethics, personal accountability, and effective work habits ("Future Workforce," 2006). Brauchle and Azam (2004) pointed out that poor work attitudes may be the reason employees lose their jobs or fail to be promoted. Many technology companies have the problem of hiring employees who have adequate technical skills but show that they lack people skills after they are put into positions that need both technical and people skills (Shaw, 2008). When an employer fills a position with a bad hire, the organization's competitive advantage can be harmed as these costs ultimately affect the company's bottom line. Problem solving, stress management, communication skills, and human relations principles are all non-technical areas that are included in the curriculum of educators but may not receive as much classroom time as other topics (Poole & Zahn, 1993). Raybould and Anderson (2005) stated that it is imperative that information technology (IT) employees have the soft skills needed in addition to the technical skills required for a position in today's workplace.

The skills employers expect from entry-level employees vary. In 1993, when Wisconsin employers were asked what skills they sought in potential employees, they responded with the following: honesty, attendance, personal appearance, and a good attitude (Poole & Zahn, 1993). More recently, in 2005, a University of Phoenix poll showed that employers were looking for team players with good verbal communication

skills who are easy to get along with and ambitious (Cline, 2005). Some technology-based companies such as ChampionsWay, a Vancouver software firm, hope to hire employees with technical skills and people skills such as communication skills and problem-solving skills (Shaw, 2008).

Postsecondary IT instructors of the northeastern counties of Mississippi and the employers of the same area may or may not have the same perceptions of which soft skills are needed in the workplaces of the northeastern counties of Mississippi. This information is unknown; therefore, data should be collected and analyzed regarding which soft skills the IT instructors of northeastern Mississippi community colleges and employers in the same area perceive as important in the workplace in order to add to the body of knowledge regarding this issue.

Theoretical Framework

Historically, there have been several theories about education in the workplace. Dewey, Locke, and Rousseau believed that learning and work should be linked. Baud and Solomon (2001) stated that Dewey believed that work was a pivotal principle of the curriculum and that the conventional disciplines of study can be taught through work. Locke developed early theories of supply and demand and believed that labor creates property. Rousseau set forth the social contract for government and believed that the main goal of education was to learn to live righteously.

Packer (1992) wrote that Taylor's assembly-line theory may have been useful in the early 1900s when employees performed repetitive routine tasks and made little use of

their individual talents. Taylor's workplace theory has been replaced by others such as that of Deming in the 1990s, in which the workers pursue excellence, product quality, and customer satisfaction. Industries such as the Japanese auto industry advocate Deming's approach because it means that quality is built into the system rather than having a system of quality control that is checked at the end of the line. Firms that hold on to the old Taylor-like theories cannot survive in the 21st century because physical strength and a willingness to work are not enough to achieve success in today's working world.

Dannreuther and Petit (2006) asserted that at the end of the 1900s, industrial growth was taking place along with the Fordist capitalism theory. Fordism is the premise that efficient organization of mass production was tied to higher wages and the expansion of mass consumption through nationally defined social and political institutions. Ravenscroft and Gilchrist (2005) pointed out that post-Fordism, the shift from the direct intervention in the operation of institutions to regulatory control where people become less aware of bureaucratic involvement, occurred after that. Urciuoli (2008) stated that soft skills are a post-Fordist development and these skills are becoming more important than hard skills to employers who hire new employees.

Soft skills in the workplace are considered an emerging theory that goes beyond the traditional workplace theories to address the current needs of the workplace. Reddick (2008) wrote that the underlying principles that distinguish professionalism and excellent customer service within an organization set apart excellent organizations. Soft skills

training within an organization may improve performance and leadership potential and may create an overall successful business atmosphere.

The emerging theory of soft skills in the workplace is continuing to evolve as the workplace changes. Krishnakumar (2008) pointed out that soft skills training institutes, industry incubators, entrepreneurship classes, and human resource training schools are becoming visible signs of the technology industry boom. Worldwide, governments and universities struggle to keep the pace of ever changing needs in offering courses in developing soft skills.

Research Questions

1. What are the perceptions of community college information technology instructors in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace?
2. What are the perceptions of employers who may employ information technology graduates in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace?
3. Is there a significant difference between the perceptions of the importance of soft skills of community college information technology instructors in the northeastern counties of Mississippi and of the employers of the same area?

Justification for the Study

Martin, Milne-Home, Barrett, Spalding, and Jones (2000) pointed out that there is a need for institutions of higher education to place more emphasis on preparing graduates for the demands of industry. They suggested that more research be done concerning the perception of entry-level employability skills among all stakeholders including instructors and employers.

Echternacht and Wen (1997) stated that knowledge of instructors' and employers' perceptions regarding soft skills in the workplace is important for educators so they may better convey the ideas and concepts that students will need in the workplace. Packer (1992) maintained that because of the need for community colleges to produce workers with the skills employers need, community college instructors must be well informed of what skills are needed. At a time when budgets are tightening for the community colleges and industries, instructors must focus on the skills employers are looking for in order to better provide workers who can help the industry in the surrounding area while allowing the worker to have gainful employment. Raybould and Anderson (2005) pointed out that the soft skills an employable person possesses before starting an entry-level position may continue to develop and may enhance his or her employment opportunities leading to a successful career. Many times the soft skills that employees have in entry-level positions have been established at home and strengthened in schools and will be reinforced in the workplace.

This study assessed the perceptions of community college instructors and employers in five Mississippi community college districts regarding the employability

skills needed in the IT field. This study determined if community college instructors and local employers have similar perceptions regarding the level of importance of identified employability skills.

Delimitations and Limitations

This study was limited to five community college districts located in northeastern Mississippi. There can be no generalization of the results of this study to any other community college districts or other communities. Time and resources also limited this study.

This study was further delimited to the instructors of Computer Information Systems Technology courses at five community colleges and the employers of students who had graduated from IT programs within these districts who choose to participate in this survey. An assumption of this study was that all respondents of the survey would answer all questions in a manner that accurately reflected their knowledge and attitudes toward workplace skills.

Definitions of Terms

Employability is a term defining the knowledge, skills, and capabilities that employers need their employees to have in today's knowledge-driven economy (Brown, Hesketh, & Williams, 2003). Selz (1980) defined employability as "the ability to get, keep, and change jobs," including factors such as basic skills, work experience, work orientation, vocational skills, and job search skills.

Employability skills are the basic skills necessary for getting, keeping, and doing well in a job. These skills allow people to get along with others and to make sound, critical decisions. Lankard (1990) defined employability skills as having a good personal image, interpersonal skills, good habits, and good attitudes. Robinson (2000) pointed out that employability skills are generic and apply to all industry types and job levels. Employability skills are generally divided into three skill sets: (a) basic academic skills, (b) higher-order thinking skills, and (c) personal qualities. These three skill sets can be divided into more detailed skill sets. Ackerman (1988) and Fleishman (1982) viewed the term *abilities* as more basic and the term *skill* as the application of basic abilities to a certain area. Employability skills are necessary for career success at all levels of employment, and they are transferable skills required by the 21st century workplace (Overtoom, 2000).

Generic skills may be viewed as the skills an individual needs to work in a routine environment or as the skills needed to work in changing work environments (Brown, 2002).

Hard leadership skills include cutting costs, improving efficiency, and disciplining employees ("Soft Skills for Hard Times," 2004).

Skills are learned abilities to do something well and are used as currency by workers (Urciuoli, 2008).

Skills gap is the difference between the skills that are needed on the job and the skills possessed by the applicants. Many employers are willing to provide job-specific training to close this gap (Robinson, 2000).

Soft skills are the skills concerned with working with other people, ensuring customer satisfaction, being a team player while delivering a high-quality product within budget and on time, and exceeding the expectations of stakeholders (Sukhoo, Barnard, Eloff, Van der Poll, & Motah, 2005).

Soft leadership skills include creating trust, having empathy, and encouraging communication ("Soft Skills for Hard Times," 2004).

Work ethics are the cultural norms that encourage the social behavior of being personally accountable and responsible for the work that one does. They are based on the belief that work has intrinsic value (Hill & Petty, 1995). Good work ethics are desirable characteristics for a potential employee (Custer & Claiborne, 1991; Hill & Petty, 1995).

CHAPTER II

LITERATURE REVIEW

Historically, the American community college has been known for preparing workers with workplace skills (Jacobs, 2005). Ideally, good employability skills should begin at home, but parents cannot be relied on totally. Soft skills tend to be the key to effective performance across all job categories. These skills are the life skills that comprise the basic management skills (Buhler, 2001). Employers consider employability skills the essential skills of employees (Brown, 2002).

Employability skills may be taught in schools or in the employment setting. Teaching employability skills increases the student's awareness of values, attitudes, and worker responsibility. Parents, supervisors, trainers, and teachers should be role models for in-school youth. Students should be able to observe workplace behavior before graduation. Ideally, classrooms should replicate the features of a workplace setting (Robinson, 2000), but if this cannot be done, class field trips to workplaces, or speakers such as professionals in the business world, can enhance a student's perceptions of what it takes to be employable.

Soft skills are essential for those entering the working world because these workers are the business leaders of the future. Business leaders must obtain soft skills as well as hard skills in order to be viewed as effective leaders. Soft skills help in engaging

employees and have long-term impact on an organization's culture (Soft Skills for Hard Times, 2004).

Information Technology (IT) professionals need to have high-quality soft skills. Workers in IT areas who rise through the ranks realize that IT is no longer a service position but is critical to business success. Soetan (2008) noted that IT professionals today are required to have an enhanced skills set including technical skills as well as soft skills. Those reaching the highest ranking IT levels realize that they need highly developed people skills more than technical expertise. There may be a disparity between the skills needed in an industry and the skills possessed by future employees. An IT skills gap may be caused by rapid changes in technology making it difficult for individuals to gain the knowledge to master a skill before the technology advances again or by a mismatch of academic perceptions of the needs of industry and the actual skill requirements of companies within the industry (Kim et al. 2006).

The literature discussed in this chapter includes issues that will help the reader to understand the importance of soft skills in the workplace. This chapter covers educational programs that help foster soft skills in students, the types of soft skills that are needed by workplaces, trends of the workplace regarding soft skills, U.S. policies that affect soft skills in the workplace, and previous research done regarding soft skills in the workplace. This chapter also includes information about the Mississippi information technology curricula and a description of the Mississippi computer occupations labor market.

Educational Programs

Schools must know what skills and knowledge students will need in the workplace and how to foster the acquisition of that knowledge. Grummon (1997) pointed out that in the past, training for specific jobs and trades was the responsibility of vocational education while training for managerial or professional jobs was the duty of colleges. A general education was sufficient for the majority of students. Pucel (1999) stated that schools should prepare students to enter life and work with a command of academic competencies and technologies and to be able to problem solve creatively.

Pucel (1998) commented that traditionally, high schools have divided students into three basic program areas: a college preparatory program, a vocational program, and a general education program. The college prep track was intended to prepare students for higher education in college. The vocational track required fewer academic subjects but focused more on the concrete skills of specific occupations. The general education track prepared the students with no specific focus for life in general (Pucel, 1998; 1999).

Curriculum Development

Houghton and Proscio (2001) pointed out that there are several lessons that should be included in training programs. Soft skills training should be integrated throughout the curriculum; teams of participants should complete assigned tasks; role-playing in various positions of the company should be used; and discipline of the workplace should be included in all areas of training. The workplace environment should be physically re-created as much as possible and it should offer support services whenever possible. Moreover, success stories should be shared. Weaving these basic principles into a real

workforce program requires careful planning and constant revision. A program that helps students develop social and technical abilities with the same degree of emphasis is better able to prepare students for the demands of the workplace. Brown (2002) stated that teamwork, problem solving, and critical thinking must be taught in the context of the students' social world. By putting students in job situations, workplace-learning experiences can highlight generic skills development while developing occupational or technical skills.

Zinser (2003) pointed out that in 1998, a Michigan employability skills task force published a document outlining the three skills areas that employers require: academic, personal management, and teamwork skills. The task force approved a model curriculum and adopted the use of student portfolios. The 10 content standards included applied academic skills, career planning, developing and presenting information, problem solving, personal management, organizational skills, teamwork, negotiation skills, understanding systems, and using employability skills. Also included were benchmark accomplishments for elementary, middle, and high school levels for each content standard. The task force described two ways to integrate these standards into the curriculum taught in higher education institutions. One approach included teacher educators' inclusion of career and employability skills components into their current courses such as curriculum development or teaching methods. This approach was relatively easy and inexpensive but relied on the initiative of individual instructors. Another approach was to add a new course to teacher education programs specifically designed to teach the content and process of career and employability skills. This course

would require significant changes to an existing course or the replacement of a course and, because of the trends in career technical education, would be updated periodically. This strategy could be extensive and time consuming, but a new course could provide the training a teacher needs, and it could make needed connections to the high school classroom.

Teacher Preparation

Brown (2002) wrote that educators must be able to teach real-world situations and provide learning opportunities that will enable students to understand how skills should be used in the workplace. Zinser (2003) expressed the idea that in the United States, career and technical education teachers often assume the role of helping students with career exploration and planning. Additionally, these teachers must decide if, when, and how much instructional time will be spent on career and employability skills. Teacher preparation programs should include a course in teaching these skills.

Zinser (2003) also noted that businesses naturally look to educational institutions to help meet their needs of getting employees with high academic, technical, and social skills. Workplace demands such as ever-changing technology, global competition, and increasing social diversity require highly trained employees. Updating teacher preparation is a way to improve teaching methods leading to increased student performance. Career and technical education teachers should have a general knowledge in workforce education and career development from their teacher preparation programs. Zinser (2003) stated that these teachers should have competence in career and employability skills and contextual teaching and collaboration with other faculty

members as well as with business and industry; they should be able to show a connection between what they teach and the workplace, thus teaching students to apply what they have learned in the classroom to the workplace.

Some secondary and postsecondary schools set high standards, requiring teachers to have board certification. To have board certification, vocational teachers must meet the established criteria set by the National Board for Professional Teaching Standards (NBPTS). The requirements include knowledge of subject matter, assessment, learning environment, and workplace readiness (Moore, 1997).

High School Programs

Pucel (1998) stated that schooling should be assessed by the students' abilities to functionally use information taught, not their abilities to repeat by rote memorization the ideas taught in the classroom. The American Diploma Project (2004) report, *Ready or Not: Creating a High School Diploma That Counts,* stated that nearly all students will require some postsecondary education after high school. A diploma should mean that standards have been met for college and work (Lewis, 2004).

Community, Corporations, and Classrooms (C3) in Fort Worth, Texas, was launched in 1989 as a communication tool for the business community and schools. Packer (1992) wrote that C3 is a project that changed the curriculum in schools initially because it was found that the writing skills being taught in schools, including essays, book reports, and literary critiques, were not the skills needed in the workplace, which included letters, reports, and brochures. Schools should prepare students to participate in their communities, live full lives, and make sure that young people are prepared for the

workplace. According to Packer (1992) most high school teachers know the entrance requirements for college, but few realize the skills needed to succeed in the working world.

In 2002, the Chicago Public Schools realized that students were not being prepared for the workforce. Gamble (2006) wrote that the Chicago Public Schools, along with the All Students Can Learn Company, created a curriculum for students from the junior high level through university and adults. The program created, *Transitions: Life Skills for Personal Success,* taught employability soft skills and modeled how employees should act on the job. Gamble explained that every lesson was aligned to standards including state and national standards, Bloom's Taxonomy, SCANS skills, and Equipped for Future Standards. Practical, real-life scenarios, self-assessments, small group exercises, and situation questions are used in the lesson plans. Modules include self-improvement skills, interpersonal skills, communication skills, career preparation skills, and on-the-job skills. The program extended to as many as 40,000 students in 2006 (Gamble, 2006).

SkillsUSA is an organization that emphasizes high ethical standards, superior work skills, a commitment to lifelong learning, and pride in the dignity of work (Powell, 2005). Once known as Vocational Industrial Clubs of America (VICA), as of 2005, close to 280,000 high school and college-age students and their instructors joined SkillsUSA every year. Powell (2005) explained that in SkillsUSA, leadership, teamwork, citizenship, and character development are stressed in an applied method of instruction preparing students in career and technical programs. Programs within SkillsUSA include

the Professional Development Program (PDP), teaching workplace skills; Total Quality Curriculum (TQC), teaching industrial quality improvement processes; Student2Student Mentoring, involving career development; Career Safe, offering a basic knowledge of workplace safety; and the Workplace Readiness Certification Program, teaching employability skills (Powell, 2005).

Community College Programs

Houghton and Proscio (2001) stated that soft skills include having a good work ethic and showing courtesy, good teamwork, self-discipline, self-confidence, conformity to prevailing norms and language proficiency, including the ability to speak, read, and write Standard English in a businesslike way. At the Cabrillo Community College in Watsonville, California, students were trained in office skills through the ACHIEVE program. Houghton & Proscio (2001) explained that many of these students were immigrants or displaced workers, and many were not prepared to work in the English-speaking North American culture of a typical California office. Learning to speak English is learning both the hard skills of grammar and vocabulary and the soft skills of courtesy, tone, and the rules of formality. ACHIEVE blended responsibility, reflection, repetition, and resource management into hard and soft facets of the curriculum. Soft skills topics such as dress, demeanor, punctuality, and thoroughness were covered throughout the program. The students were required to additionally practice what they had learned in ACHIEVE's Model Office Simulation (MOS) by filing, copying, using various office machines, and managing other duties that may arise in a real-world situation. The hard skills that were taught included writing, typing, and organizing projects that are the

foundations for the soft skills of learning to deal effectively with supervisors and colleges, handling stress, and rebounding from mistakes.

In 2006, after local employers and social service providers expressed concern about finding qualified candidates with workplace readiness skills for open positions in the surrounding area, Heartland Community College in Normal, Illinois, introduced a program designed to teach job and life skills as well as professionalism to students entering the workforce and those who had experienced obstacles in their educational or professional endeavors. Gilmore (2008) described the Essentials Suite as a three-part program including business essentials, IT essentials, and manufacturing essentials. Students must have applied for the program and been individually interviewed before being accepted. Students could take technical classes such as computer maintenance and repair or business as well as classes in people skills, interviewing skills, and on-the-job skills. The program taught students how to build long-term career goals and how to sustain themselves while in the working world (Gilmore, 2008).

Community Programs

Opportunities for a Better Tomorrow (OBT) was a program based in the Sunset Park neighborhood of Brooklyn, New York. Houghton and Proscio, (2001) stressed that less than 50% of the people participating in this program had a high school diploma or General Education Development (GED) credential, and most read at an eighth-grade level or lower. Most were single young women with children; three-fourths were Hispanic; and many had a history of time in jail, gangs, youth facilities, and homeless shelters. The program referred to its students as *clients*, teachers as *managers*, and

counselors as *supervisors*. Clear, correct, courteous communication was a major part of the curriculum in all areas as no street slang was allowed. Curriculum included vocabulary, spelling, math, geography, and current events. This program stressed the idea that a client needs to act like a person who will be a good employee. Clients developed a resume and practiced interviewing techniques. After the 22-week program, more than 75% of OBT's clients found good paying jobs and were on their way to success in the working world (Houghton & Proscio, 2001).

Training, Inc., the employment program at the YMCA in Boston, Massachusetts, was one of six programs nationwide that simulated a true-to-life workplace setting in an attempt to give participants experience working in a realistic office environment. Houghton and Proscio, (2001) explained that after a 2-week preparation, students applied and interviewed for a position in the simulated company, learned the tasks and responsibilities of the position, and kept the imaginary company solvent. Positions included receptionists, data entry clerks, customer service representatives, and managerial positions. Students were involved in taking telephone orders, ordering supplies, and dealing with real-world situations. Volunteers, some of whom are past graduates of the program, called in orders and served as hard-to-please customers for the company. There were about 40 participants in each 18-week program, and each must have had a high school diploma or a GED. Seventy percent of the participants were on welfare, 20% were unemployed, over 90% were young women with children, and about half spoke English as a second language. The program helped develop participants' self-esteem, confidence,

and interpersonal skills as well as the day-to-day skills needed in an office atmosphere (Houghton & Proscio, 2001).

In San Francisco, California, Op-Net was a 13-week training program in the field of Web design. Houghton and Proscio (2001) noted that participants in this program were from low-income households but had a high school diploma and some proficiency with computers. The first 5 weeks of the program focused on computer skills such as Hypertext Markup Language (HTML) and the soft skills students need to compete with others in this business sector. Field trips, presentations, and workshops helped to prepare students for the new culture that they will enter. Students studied business vocabulary, delved into industry jargon, and practiced effective social skills and personal discipline. The program arranged internships for participants that may lead to permanent positions. Students must be prepared with the soft skills they have learned so that they can face job challenges such as layoffs, cutbacks, and other gaps in employment (Houghton & Proscio, 2001).

Summary

Carnevale and Carnevale (1994) explained that the sources for skills improvement training include schools, formal company training, informal on-the-job training, and other types of training. Zinsner (2003) asserted that as teachers realize that the most critical issue facing public education is student preparation for the workforce, they have embraced different instructional strategies to aid them in teaching employability skills. High schools, community colleges, and community leaders can work with business leaders to offer programs that encourage students in the areas that will be beneficial to the

surrounding industries. Educational programs should prepare students with the skills they will need in the working world (Packer, 1992).

The Workplace

Research shows that the skills most demanded by today's employers are soft skills such as the ability to work with others, to communicate effectively, to demonstrate initiative and self-direction, to solve problems, and to demonstrate a positive work ethic. Wilhelm (2002) states that industry and political leaders in the United States have claimed schools are not adequately teaching these skills. Wilhelm also asserts that a gap exists between the soft skills demanded by employers and the skills provided by our educational institutions.

Workplace Skills

Some new entrants into the workplace may not be able to make change for a dollar or even understand that they should be on time to work (Cadrain, 2005). Employers have said that they are looking for employability skills such as thinking skills, personal quality skills, and interpersonal competencies rather than technical competencies in new employees. The primary barrier to employment is the lack of soft skills such as general social skills and calling if one is going to be absent or late (Brown, 2002).

Robinson (2000) pointed out that in the working world, a person who can act logically, think critically, evaluate situations, and solve problems is considered a valuable asset. The application of higher-order thinking skills can make the employee even more valuable. Employees with good personal skills have confidence in themselves and show

respect for themselves and their co-workers. They are team players and take initiative to get the job done. They set goals and priorities to manage time and other resources wisely.

Employees need standard academic skills and a foundation for building more sophisticated job-related skills. Learning to learn, listening, oral communication, problem solving, creative thinking, self-esteem, goal-setting/motivation, personal and career development skills, interpersonal skills, teamwork, negotiation, organization effectiveness, and leadership are the additional skills needed. Employees who know how to learn can positively affect their companies' productivity, innovation, and competitiveness by applying new knowledge to their work. Employers need workers who have the basic competencies of reading, writing, and computation. Trainers in the workplace teach job-based concepts such as writing on the job, workplace math skills, and communication skills because this type of training will produce the quickest and most effective improvements in job performance (Carnevale, Gainer, Meltzer, & Holland, 1988).

Skills improvement training includes company training and on-the-job training. Formal company training increased between 1983 and 1991, showing that employers are becoming more committed to providing training for their employees. In 1991, data collected showed that occupation-specific technical training was the most common type of training provided by the workplace, followed by computer-related training (Carnevale & Carnevale, 1994).

Employees in all types of organizations must know basic workplace skills. Workplace training programs provide job-specific, basic skills training; in return, they get

the best out of their workforce and their marketplace (Carnevale et al. 1988). Blundell, Dearden, and Meghir (1996) showed that employer-provided training either on the job or off the job has a positive effect on wages for the employee. Training leading to certificates of qualification showed an even higher effect.

Employers want educators to teach students basic skills, and then they can train them on the specific skills needed for the positions for which they were hired (Hofstrand, 1996). Soft skills are skills such as interviewing and resume writing skills, while hard skills are those such as the operation of equipment. Hofstrand (1996) noted that between the hard skills and the soft skills, there are generic technical skills that are needed by almost everyone in the working world. These soft technologies are generic technical competencies that fill the gap between soft skills and hard skills. Soft technologies include knowing how to learn on the job, knowing safety hazards and protective equipment, and understanding how systems work such as the systems used for organizing merchandise, materials, or tools (Hofstrand, 1996). Caudron (1999) asserted that soft skills training is sometimes offered in the workplace, but when budgets are cut, companies see training in computer skills as more valuable. Caudron also pointed out that there has been recent research that confirms that soft skills can be taught and they can be developed over time. Self-awareness, self-management, social skills, and social awareness all contribute to a person's ability to function well in the workplace.

In 2005, a work readiness test was initiated by a national business coalition including the U.S. Chamber of Commerce; workforce development systems in Florida, New Jersey, New York, Washington State, the District of Columbia, and Rhode Island;

and leaders in business and academia (Cadrain, 2005). This test was developed to make sure that applicants have the skills employers need. Over 400 front line supervisors from a wide range of industries were surveyed to identify the skills that are needed for entry-level work. The test included four subtests, which are applied reading, applied math, situational judgment, and oral language. The situational judgment test asks the test takers to choose the best or worst choices when given an on-the-job scenario. The oral language test asks for an oral response after listening to a situation. The test was officially launched in 2006. After taking the test, job seekers are able to demonstrate that they have the knowledge and skills needed for an entry-level position. Employers can use the results as a screening device for incoming workers. Youth and immigrant workers can benefit from this test as well (Cadrain, 2005).

Powell (2007) expressed the thought that employers should acknowledge that hard skills are important, but employees should develop a range of soft skills, particularly in communications. A wide range of soft skills will enable them to communicate more effectively with colleagues and customers. Powell added that soft skills training is a continuous process and should be included in business planning. Some training companies offer smaller training programs that are less expensive than others. Sometimes the training expenses are placed upon the employees. Many firms share the expenses with their employees (Powell, 2007).

Company Training Programs

Many IT professionals were originally hired for their technical and engineering abilities, but as they progress up the career ladder, many find themselves in supervisory

roles (Flood, 2007). Fujitsu Services developed a company-wide soft skills training program focusing on the organization's people management skills. Flood (2007) explained that a team from the company met with key stakeholders including senior management, service employees, and outside resources and found that there was a need for better communication skills among colleagues, clients, and stakeholders. From this meeting, the Fujitsu Management Academy (FMA) was created and offered employees three core development modules in 11 languages at 13 locations worldwide. These three modules are straight talking/genuine listening, leadership, and team development. They were aimed at developing a one-company culture. The FMA sought to deliver training in vital soft skills to employees in all relevant languages. This program allowed Fujitsu to develop a company-wide performance culture that strengthens and supports its employees (Flood, 2007).

Delaware North Companies, Inc., (DNC) provide hospitality and food services to national parks, stadiums, and airports and employs 40,000 people worldwide. Roberts (2008) expressed that DNC partners with Element K Corp., a vendor of e-learning technology to provide a custom tailored program for entry-level and mid-level managers. This program delivers soft skills training including team management, delegation, and conflict resolution (Roberts, 2008).

Roberts (2008) affirmed that U.S. Bancorp employed about 50,000 people worldwide and was concerned with the transfer of knowledge from retiring baby boomers to the younger workers. U.S. Bancorp officials implemented Mentor Connect, a mentoring program that matches employees who want to be mentors to those who want

mentoring. Using a Web-based databank to gather demographic and competing information from those who want mentoring, this program helped to transfer the knowledge of soft skills from those who have had experience to those who wish to gain this knowledge (Roberts, 2008).

Summary

Employers want and expect workers who demonstrate the soft skills that are required in the workplace. Employers often expect school systems to teach basic skills, and the business can provide on-the-job training for the skills needed to accomplish the needed tasks (Caudron, 1999). Some companies have developed training programs to deliver training that is needed including teaching hard and soft skills.

Trends

Demographics, worker ability, attitude, technology, and on-the-job training are all trends that affect the American workplace. These trends can change the American workplace for the better or worse.

Demographic Trends

The demographics of the American workforce have changed throughout the years. The American workforce is growing older. The median age of the U.S. workforce in 1930 was 26; in 1970, it was 28; and in 2000, it was 36 (United States Census Bureau, 2005). Older workers may increase the value of the workplace because of their experience but may decrease the value of the same workplace if the changing technology

is affecting it and older workers are not able to keep up with the changes. An increase in females in the workforce has also had an effect in the American workforce, although a small one. More women are choosing to enter the workforce, often because of economic necessity. Hispanics are the fastest growing ethnic group in the American workforce. Many Hispanic immigrants are poorly educated, often not speaking English and having many cultural differences. Another trend is the mobility of the workforce. Although younger workers change jobs more often than older workers, Americans generally change jobs more frequently than workers in other industrialized nations (Hunt, 1995).

Szabo (1991) stated that it has gotten harder for employers to find qualified workers for the jobs they must fill. Employers need specialized skills, basic verbal skills, and work-habit skills. Companies are hiring more handicapped and part-time people and must make accommodations and be more tolerant of this workforce. Retaining older and more experienced workers means companies will need to provide incentives to keep them. Education, training, and retraining are necessary approaches to retaining workers.

The American workforce has become more diversified with the addition of more women, minorities, and people with varying cultural backgrounds. Szabo (1991) claimed that more employees want flexible hours because of the demands of working parents and the longer life span of the elderly population. Employers must try to meet the demands of workers to ensure employee retention and greater productivity. Large companies hire aggressively if the labor market tightens. They may choose to hire inexperienced workers who are willing to learn the necessary technical skills needed. This approach is not always successful because some decide the work is too difficult and others have to be let

go because they are not willing or are not capable of putting forth the effort to learn (Szabo, 1991).

Worker Abilities and Attitudes Trends

The cognitive skills of the workforce depend on the ability of the workforce. Without a skilled workforce, management will invest in new technology and may seek new workers. Traditionally, the skills of the workforce were determined by the amount of education that workers had. Marshall and Tucker (1992) stated that there is a difference between design standards and performance standards. High school graduates have met the required standards for graduation, but they do not necessarily have the performance standards that educated workers are expected to have. To assess the cognitive abilities of workers, employers may be asked if their workers are performing adequately or if they pay higher wages to those workers who are higher educated. In addition, the workers within the workplace may be directly tested (Hunt, 1995). Educating the most educable and ignoring the rest is no longer acceptable. All people must now have a rigorous education to apply to life and work and an understanding of rapidly changing technologies they will encounter. People cannot just accumulate information; they also must know how to process it and to use it to benefit themselves and others (Pucel, 1999).

In 1994, the Clinton administration changed the emphasis of unemployment assistance from temporarily helping persons who had been laid off to permanently retraining people for new positions. Hunt (1995) reported that a major factor in this move was that the quality of value-added operations depends on the skills of the people in the workforce. The wealth of a nation is tied to the skills of its workforce, and the prosperity

of America depends on the skills of its people. Today a capable workforce can compete quickly and easily with the workforces of other countries (Hunt, 1995).

Hunt (1995) wrote that the National Academy of Sciences report of 1984, the U.S. Department of Labor, Education, and Commerce study of 1988, the Commission of the Skills of the American Workforce of 1990, and the Secretary's Commission on Achieving Necessary Skills of 1991 all reached three basic conclusions concerning employers' attitudes about the entering worker. These conclusions were that there was a deficiency in basic language skills and in math skills; entering workers had low learning or problem-solving skills; and entering workers were lacking good work ethics, such as interpersonal skills like self-discipline, meeting time commitments, and working well with others. Hunt notes that these reports were unclear about whether the problem stemmed from the schools' lack of adequately teaching these things or whether the demands of the workplace have gotten higher. Except in high technology industries, employers generally viewed a good work ethic as more important than cognitive skills (Hunt, 1995).

Educational Trends

Recent trends show that employability skills have slowly become integrated into school curriculum. Overtoom (2000) wrote that through the North Central Association on Schools, professional development credits were being offered to administrators and teachers in 142 pilot schools in 13 states. Credentialing these teachers and administrators will help them to prepare students with the skills they need to be successful in their chosen careers. The Conference Board of Canada has listed essential workplace

competencies and applied them as an interactive Internet tool kit targeting K–12, secondary, postsecondary, and adult learners. A research center at Johns Hopkins University is using SCANS research in developing individualized employability skills assessments. Overtoom further explained that the SCANS/2000 Center analyzes high school students, community college learners, entry-level workers, and incumbent workers establishing baseline skills, task-based skills, and observed behavior in the workplace or classroom. An individual development plan is created including a strategy for the individual to increase mastery of skill levels in the future (Overtoom, 2000).

According to the U.S. Census Bureau (2005), the educational attainment of U.S. citizens has continued to rise. About 52% of the population had earned a high school diploma in 1970, while in 2000 about 80% had earned a high school diploma. In 1970, only about 11% of the population had a bachelor's degree or more, but in 2000, about 24% had earned a bachelor's degree. Migrant workers, especially those from Mexico, tend to be motivated, dependable, and conscientious employees. These people tend to want to work, and they have good attitudes about working.

Technology Trends

The declining skills of graduates coming out of U.S. schools, the increasing number of immigrants for whom English is a second language, and the economy becoming more information-based rather than manufacturing based all influence the workforce skills gap. According to the Hudson Institute study, *Workforce 2020* (Judy & D'Amico, 1997), jobs have moved away from production-oriented, mindless labor toward white-collar, computer-based, information service work. Jobs requiring higher

math, language, and reasoning skills were in high demand; and the ability to interpret and absorb complex information have been required (Smith, 2002).

The widening gap between those who have the ability to access, understand, and use information and those who do not has become a negative aspect of the information age (Smith, 2002). The massive amounts of information available requires today's worker to have advanced skills for processing information, thereby increasing the need for higher levels of education and training. Smith commented that thirty years ago, an individual with a high school diploma could get a good job without postsecondary education, and one with a college degree in any area was highly marketable. Many fields require greater credentials, more education, licenses, and/or certificates than in the past (Smith).

Large companies have realized that it can be expensive and time consuming for their local executives and human resource managers to provide training at different locations of their businesses (Roberts, 2008). A virtual classroom via the Internet can provide cost-effective and consistent training for employees in different locations. Roberts explained that soft skills training through Web-based learning is a growing trend for larger companies. Self-paced interactive modules, virtual classroom meetings, and electronic whiteboards are used to provide workplace training in an innovative way. The virtual classroom can be used to provide employee training in management, teamwork, ethics, and languages, as well as soft skills such as delegation and empowerment. Targeting a generation that is already familiar with cell phones, computers, and networks, companies can use e-learning to provide soft skills training, making learning interesting,

fun, and easy. Human resource professionals have found that on-the-job training is still the best delivery method for technical skills, but soft skills such as teamwork, effective communication, delegation, empowerment, and conflict resolution can be effectively taught by online training (Roberts, 2008).

Workplace Trends

Employers are investing more and more time and money into their employees' growth by providing them with more opportunities for career and skill development. Brown (1997) stated that sometimes employees can enhance their skills or learn new skills while the company pays for training. This employer-employee relationship can be beneficial to both parties when the employee training improves productivity and increases profits for the company. In recent years, loyalty has not played as big a part of this partnership as business had hoped. Many employers are concerned that employees, after being trained with new skills, will leave the company before a good return on investment is realized. Brown reported that as a result, more and more companies have developed employment contracts that bind the employee to the organization for a set period. In the workplace, knowledge of contract negotiation and contract law is essential. Brown also explained that traditionally, the employee benefited from a contract agreement; however, employers today benefit by being able to keep valued employees. These contracts may include restrictions, compensations, and clauses such as those requiring the employee to remain with the company until training expenses have been recovered. These agreements are becoming increasingly more common in the workplace.

Summary

The American workplace is experiencing demographic and cultural trends as workers grow older, immigrants move into the country, and society becomes more ingrained with technology. Workers must have the soft skills necessary to process information, problem solve and be team players in the workplace (Pucel, 1999). The educational trends of soft skills being integrated into the workplace will help foster dependable and conscientious workers. As companies provide on-the-job training, employees can advance and enhance their workplace skills (Brown, 1997).

United States Policies

In order to keep American companies competitive and create good jobs, several public policies have begun to address the workforce skills gap issue. The policies that bring education, business, and government together will benefit schools, the economy, and especially the students (Smith, 2002). The following U. S. policies are a reflection of federal interests and are important in this study because they include soft skills as a basic component of the curricula in educational programs.

The Job Training Partnership Act

Hamilton and Hamilton (1997) explained that the Job Training Partnership Act (JTPA) initially went into effect in 1982, and under the JTPA, government subsidized employment-training programs had to have formal learning components. Program operators had to make the effort to improve the educational quality of these programs by testing and then implementing the needed training including hard and soft skills

(Hamilton & Hamilton, 1997). Through JTPA programs businesses, educators, and government officials worked together to address hard and soft skills competencies in training future employees (North & Worth, 1998).

The Carl D. Perkins Vocational and Applied Technical Education Act of 1984

In the 1970s and 1980s, policy makers saw that the educational systems of global competitors provided national educational systems and standards for their students. Policy makers then decided set forth standards for students in the United States (Grummond, 1997). Grummond (1997) stated that the United States enacted the Carl D. Perkins Vocational and Applied Technical Education Act of 1984 that focused on the integration of academic and vocational instruction while requiring states to develop performance standards and ways to evaluate the effectiveness of programs. Some states also used this mandate to assess individual vocational education students on their workplace readiness skills and occupational skills (Grummond, 1997).

Special Initiatives

Smith (2002) stated that some initiatives have been undertaken to identify the skills and competencies required of entry-level workers, including the Secretary of Labor's Commission on Achieving Necessary Skills (1991); the National Council on Education Standards and Testing (NCEST) (1992); the National Educational Goals Panel (1992); the Future of the American Workforce Conference (1994); the National Education Standards and Improvement Council (1994); the National Skills Standards Board (1994); the New Standards Applied Learning Framework Project (1994); and Vice

President Gore's Twenty-First Century Skills for Twenty-First Century Jobs (1999). All these initiatives identified skills and competencies that relate to workers regardless of industry or workplace setting. Employers stress that too many high school and college graduates do not possess the skills necessary for entry-level positions without additional extensive employer training (Smith).

Szabo (1993) wrote that business, labor, and government must work together to eliminate the gap between the skills workers have and the jobs that are available. Job training was the key to U.S. economic growth, productivity, and living standards. In 1990, the U.S. Chamber of Commerce established the Center for Workforce Preparation and Quality Education to help local business leaders improve worker-training programs (Szabo). This center developed a school-finance model that enabled communities to track education dollars through the central office and through every classroom to distinguish any inequalities in spending within individual school districts.

The U.S. Chamber of Commerce was working to help improve the education system, improve worker-training programs, and help companies adopt quality-management techniques. Szabo (1993) noted that to help improve worker-training programs, the U.S. Chamber of Commerce established the Community Learning Information Network (CLIN) to deliver services such as facilities for audio and video conferences, self-directed learning software, instructional or training services, and access to the Internet. Distance learning capabilities can play an important part in educating and retraining the American workforce. Schools, businesses, and other members of the community can also benefit from these services (Szabo).

The Secretary's Commission on Achieving Necessary Skills

The Secretary's Commission on Achieving Necessary Skills (SCANS) Report, *What Work Requires of Schools* (U.S. Department of Labor, 1991), is important for educators, students, parents, politicians, and business leaders. The commission examined employers' and employees' perceptions of the importance of basic workplace competencies in 50 different occupations (Echternacht & Wen, 1997). Thirty-one SCANS commissioners representing education, business, labor, and state government interviewed employers, managers, and front line workers at their workplaces in the United States asking what skills were needed in their jobs. The three foundation skills that SCANS identified were basic skills (reading, writing, mathematics, speaking, and listening), thinking skills (creativity, decision making, reasoning, and problem solving), and personal qualities (responsibility, self-management, and integrity). These are skills needed for high performance work. Five competencies were identified that build on the foundation skills. These were (a) resources such as organizing and planning time and money, (b) interpersonal skills such as working with others, (c) information such as gathering and using information, (d) systems including understanding complex systems relationships, and (e) technology including selecting, maintaining, and troubleshooting technology. These eight areas of the three foundation skills and the five competencies were found to be essential for those going into the working world or going to higher education. The foundation skills and competencies are universal for most jobs with varying levels of proficiency (Overtoom, 2000; Packer, 1992; Poole & Zahn, 1993).

The three foundation elements and the five competency areas are complex and interwoven. The SCANS report showed that these skills are not innate but must be taught in schools and then be refined by on-the-job experiences and further training (Poole & Zahn, 1993). Addressing the issue of personal qualities has been a challenge for most schools, but employers expect schools to teach soft skills to students (Hill & Petty, 1995).

The SCANS competencies have been generally accepted by industry and education as reasonable, comprehensive, logical, and attainable (Resnick & Wirt, 1996). Overtoom (2000) pointed out that there have been three misconceptions about SCANS reports. There has been an assumption that SCANS relates primarily to entry-level employment, and they are not needed at other levels within the workplace. Another misconception is that SCANS refers to only soft skills such as teamwork or interpersonal skills. In fact, five competency groups, including using technology skills and interpreting information, deal with hard technical skills. The third misconception is that the term *employability skills* does not coincide with a higher level of academic work. *Career success skills* may more aptly fit all careers and all levels of the working world.

Packer (1992) stated that the SCANS report showed that students are leaving school without the knowledge or skills needed to find and hold a good job. Low skills lead to low wages and low productivity, and many people with low skills will end up with dead-end low-paying jobs. Smith (2002) stated that the SCANS report argued that employee empowerment, teams, and new work technologies require a higher level of existing skills from workers. The SCANS report stated that many young adults could not acquire and maintain good jobs because they do not have the knowledge required.

Hamilton and Hamilton (1997) advocated that the second SCANS report in 1992, *Learning a Living: A Blueprint for High Performance,* correlated the SCANS competencies with high wages.

Goals 2000: Educate America Act of 1994

Smith (2002) stated that the Goals 2000: Educate America Act of 1994 was passed to encourage broad educational reform in the United States. The Goals 2000 Act was a cooperative effort of the U.S. Department of Education and the U.S. Department of Labor. Goals 2000 established a framework for excellence in U.S. education by setting challenging academic standards, asking states to develop comprehensive education reforms, and encouraging community and parent involvement. Goals 2000 objectives included a high school completion rate of 90%; children entering school ready to learn; partnerships between parents, schools, and communities; schools teaching critical thinking skills; and the preparation of teaching professionals (Smith). Goals 2000 also included provisions to develop content and performance standards and to access workplace readiness. These standards were used to develop links between academic standards and workplace readiness standards (Barker, 2000).

The School-to-Work Opportunities Act

Also in 1994, the School-to-Work Opportunities Act was passed, mandating that students meet the academic content standards set forth under Goals 2000 (Grummon, 1997). When a student meets the skills standards, a certificate may be issued to convey to employers the student's preparation in specific occupational areas. Skills certificates were

encouraged by the Perkins Act because these showed the student's competence in areas that do not have traditional methods of accessing skills. When hiring, employers would look for very general workplace skills such as interpersonal skills, but the specific occupational skills are what most people develop and use best. Individual schools were to consider the assessment of the student's ability to apply to the workplace the knowledge and skills that he or she learned (Grummon, 1997). The School-To-Work Opportunities Act of 1994 asked school counselors to focus on the transition from the secondary school setting to employment, but the skills-based outcomes are also appropriate for college bound students (Barker, 2000).

Workforce Investment Act

The Workforce Investment Act of 1998 (WIA) is a workforce development system designed to meet the needs of organizations and individuals and to help individuals acquire work-ready skills (Smith, 2002). This system furnishes core services based on the one-stop career center concept. These services include comprehensive assessments, individual employment portfolios, counseling, and training services such as career skills training, skills upgrading, and adult literacy activities. Companies provide the WIA system with information about job openings and the skills level they require. WIA's primary objective is to meet employers' needs for skilled workers by fulfilling the education and training needs of employees (Smith).

Tech Prep

The Tech Prep initiative has been a major factor in educational improvement in the United States. The amendments of the Carl D. Perkins Vocational and Technical Education Act in 1998, also known as Perkins III, reauthorized Tech Prep to continue promoting work-based learning (Smith, 2002). Tech Prep promotes vocational technical education to ensure that students can meet the challenging state academic requirements as well as industry recognized skills standards. Tech Prep emphasizes hands-on approaches to learning academic concepts (Smith).

Other Programs

Other educational reform programs include the work of the Southern Regional Education Board (SREB), which was created by the governors of the 13 southeastern states of the United States to act cooperatively to upgrade the educational systems within those states (Pucel, 1999). The Tech Prep programs were planned to develop curricula focusing on rigorous academic and technological skills and in the context of career areas. Pucel explained that these programs were to work cooperatively with at least one higher education institution, other area high schools, and area businesses and industries. These reform movements asked that high school curricula include applied learning and creative problem solving; be integrated with vocational and academic material; be articulated with post high school educational institutions; and allow students to participate in community-based activities as a part of the formal curriculum (Pucel).

Summary

The United States has established educational policies that have had a positive impact on the education system and have helped set standards that are comparative globally (Smith, 2002). These policies can help students to acquire the appropriate knowledge and competencies that are needed in the workplace. If students are not familiar with workplace skills, they are poorly prepared to enter the job market (Barker, 2000). Perceived declines in U.S. international economic competitiveness can be attributed to the education system's inability to produce students with adequate skills for a modern workforce ("Future Requirements: Workforce Skills," 1993).

Previous Research

This section of the literature review presents educational research that has been conducted concerning soft skills in the workplace. Some studies focused on the relationship of soft skills to wages, where soft skills are obtained, which soft skills are needed, soft skills work ethic, soft skills after high school, teachers' and employers' perceptions of soft skills in the workplace, and international research on soft skills in the workplace.

Soft Skills and Wages

Thomas (2001) cited a study of the changes in the labor market from 1970 to 1996. During this time, the demand for workers with both high levels of education and high cognitive skills increased, and the number of jobs requiring lower levels of education increased at an even faster rate. This caused downward occupational mobility.

Workers with both high levels of education and high cognitive skills obtained the higher wage positions, but workers with high education levels but lower cognitive skills were left with positions requiring lower educational levels. Workers with lower education levels were forced out of the labor market. This study concluded that because of the increased demand for workers with high soft skills, wages are higher in positions requiring high education and high soft skills.

Rotundo and Sackett (2004) realized the need for a skilled workforce in the United States. They sought to determine if labor markets reward individual's skills and abilities and whether students' efforts should be focused on specific skills or on a broad range of skills. Their research examined different skills and attempted to find which skills led to the highest wages. They drew data samples from five job analytic systems: one from the WorkKeys job skills assessment system by American College Testing, Inc. (ACT); two from the Occupational Information Network database (O*NET) including O*NET skills and O*NET abilities; and two from a government database developed by the Committee of Occupational Classification and Analysis of the National Academy of Science, Dictionary of Occupational titles (DOT), including DOT Skills and DOT Abilities. A total of 936 sample job categories along with wage data were collected, and each job was rated on seven skills for effective performance.

Rotundo and Sackett (2004) concluded that there was a wage variance of between 29% and 43% among the occupational groups and between 9% and 28% among the individual skills and abilities of each job analytic system. A cognitive factor in all data sets showed a strong correlation and accounted for a majority of the wage variance, and

there was a general cognitive factor underlying job requirements. Overall, they found that a wide range of cognitive skills and abilities within the same occupational group would yield the greatest wages.

The Necessary Soft Skills

North and Worth (1998) attempted to determine if the changing workplace still needed the competencies identified from the SCANS reports. They studied entry-level classified newspaper advertisements from 10 standard metropolitan statistical areas on the first Sunday in July of 1992 through 1996. They found that as of 1998, the workplace continues to seek the technology skills advocated in the 1991 SCANS report but neither the interpersonal skills nor the basic communication skills. Their study concluded with the thought that it is unlikely that interpersonal skills and basic skills are no longer important in the workplace. Most likely, these skills are just expected of entry-level applicants, and listing them in newspaper ads may not have been deemed necessary.

Workplace skills include academic skills and behavioral skills. The Michigan Employability Skills Task Force for the Michigan Legislature and the National Center on Education and the Economy for the Rochester (New York) City School District Board conducted independent surveys seeking to identify the skills needed for future employees in the workforce ("Future Requirements: Workforce Skills," 1993). The business leaders polled stated that the most necessary skills for the workplace were behavioral skills such as honesty, respect, punctuality, and being free from substance abuse. Academic skills were deemed as the least important skills in these surveys. In 1993, Michigan businesses placed lowest priority on understanding foreign language, mathematics skills, natural and

social sciences, and computer skills. Reading and following directions were the only two academic skills that made the most critical list ("Future Requirements: Workforce Skills," 1993).

The Commission on the Skills of the American Workforce survey found that only 20% of employers surveyed believed that workplace skills would increase in the future ("Future Requirements: Workforce Skills," 1993). Only 15% had difficulty filling positions, and most of these were in underpaid professions such as skilled secretaries, nurses, and craft trades. The skills these businesses sought included work ethics and social skills but not necessarily academic skills. The Commission on the Skills of the American Workforce investigated the common perception that schools do not teach the skills that businesses need, and businesses are therefore required to give remedial basic skills training. The American Society for Training and Development (ASTD) reports that 2/3 of all training dollars spent by businesses go to the training of managers professionals, supervisors, and salespeople. The other 1/3 is spent primarily on upgrading skilled technical employees, and very little is spent on entry-level, blue-collar basic skills training ("Future Requirements: Workforce Skills").

A survey conducted by the Conference Board, Corporate Voices for Working Families, the Partnership for 21st Century Skills, and the Society for Human Resource Management conducted a survey of 431 human resources officials ("Future Workforce is Ill-Prepared, Report Says," 2006). This survey found that 70% of survey participants noted deficiencies in skills such as teamwork, critical thinking, and communication among employees entering the workforce in April and May of 2006. According to this

report, U.S. employers perceived the incoming workforce as lacking basic academic skills as well as applied skills. New entrants to the workforce included graduates from high schools, 2-year colleges or technical schools, and 4-year colleges ("Future Workforce is Ill-Prepared, Report Says," 2006).

Both hard leadership skills and soft leadership skills are needed in the workplace according to a survey conducted by the Center for Creative Leadership (CCL) in Greensboro, North Carolina ("Soft Skills for Hard Times," 2004). When referring to the profitability of a company, it is often thought that hard skills are much more important than soft skills. The CCL's study found that effective leaders are able to balance the two in order to run the organization efficiently, giving employees support and direction and at the same time meeting the goals of the company. Three soft characteristics were found to be relevant to successful leaders. These were (a) honest, proactive communication, (b) clear communication regarding changes in procedure or organization, and (c) listening and sensitivity skills. The CCL study showed that over half of the people surveyed reported that leaders in their organizations fail to communicate clearly when dealing with organizational changes such as downsizing. This lack of communication leads to employee confusion, erosion of trust, and lower morale and, therefore, to lower productivity levels. In another study by the CCL, soft skills were shown to be important to a leader's career. This study focused on problems with interpersonal relationships, difficulty leading a team, and difficulty adapting to change ("Soft Skills for Hard Times," 2004).

Work Ethic

Hill and Petty (1995) studied characteristics of occupational work ethic using the Occupational Work Ethic Inventory (OWEI) developed by Kazanas in 1978. The OWEI is a 50-item instrument in which 11 of the items are reversely stated measuring work attitudes to describe themselves at work. This study concentrated on the outcomes expected of people who embrace a good work ethic. Hill and Petty surveyed people from 158 public and private firms in the southeastern United States using the OWEI with a Likert scale response. Constructs were identified and labeled providing a definition of the work ethic attributes measured. A construct is a non-observable trait such as intelligence that can explain differences in behavior between individuals (Gay, 1996). The findings of the study revealed that three constructs were identified providing a concise definition of the work ethic attributes measured by the OWEI. The three main constructs identified were interpersonal skills, initiative, and being dependable. A fourth factor was also identified and interpreted as a response pattern resulting from negative perceptions communicable by these descriptors. Hill and Petty (1995) suggested that the OWEI be used as a tool by which vocational educators can assess students' work ethic and help them to understand the concepts important for success in work. They further suggested that work ethic, specifically the merits of interpersonal skills, initiative, and being dependable, be embedded throughout vocational program curricula.

The OWEI was also used by Brauchle and Azam (2004) to compare the self-perceived work attitudes of manufacturing employees and their supervisors' ratings of those employees. In two studies, they compared the factor analytic studies of the self-

perceived work attitudes of 454 employees of medium-sized manufacturing industries in the central Illinois area and 581 supervisors of those employees. They found that the OWEI measured the work attitudes of those self-evaluating and of those evaluating others as comparatively high reliability, consistent with evidence for construct validity of this instrument.

Work Bound or College Bounds

Bloch (1996) reported that counselors perceived that work bound and college bound students were similar in their need for developing workplace skills and competencies. Bloch stated that work bound students would see the need for workplace skills immediately after graduation, and at the same time, many college bound students work while in college or may drop out of college to enter the labor force. Block argued that these college bound students have as much need to learn employability skills as their work bound counterparts.

Barker (2000) examined the perceptions of high school counselors regarding work and career development skills requirements for work bound students as compared to college students. He collected data from 151 high school counselors in one state in the southeastern United States. Those counselors believed that it was more important for the students who were work bound to have the skills they needed to seek and obtain employment. For the students who were college bound, it was more important to be able to use computers to process information and to access further education. Barker found no significant differences in the counselors' perceptions of 11 of the 14 skills and competencies listed on the survey. This suggests that these counselors believed that it is

important for all students to have these skills and competencies regardless of their future plans.

Teachers' Perceptions of Soft Skills

Echternacht and Wen (1997) compared the perceptions of beginning and experienced business teachers in secondary schools on their ideas of the importance of workplace basic competencies. The researchers used a questionnaire to survey business teachers in Missouri public secondary schools. This questionnaire included workplace basic competencies that the commission had identified and used a 7-point Likert scale for ranking them. The responses included 83% of the beginning business teachers and 76% of the experienced business teachers who were asked to participate. A chi-square test of independence was used to determine if there was a significant difference between the two groups. This study revealed that beginning business teachers and experienced business teachers ranked the areas of information, interpersonal skills, resources, technology, and systems in that order of importance. Both groups ranked the 20 competencies similarly with eight out of nine competencies ranking the most important among the two groups and three of the four ranked least important. The competency *allocating human resources* had the greatest difference being ranked seventh by beginning teachers and sixteenth by experienced teachers. The technology domain was ranked as more important by the beginning group of teachers than by the experienced group. Echternacht and Wen suggested that workplace basics competencies should be integrated into business curricula as well as vocational–technical subject matter. Emphasis should be on teaching the skills and knowledge in context to typical applications and real-world uses. Projects

applying to workplace situations, internships, and shadowing workers on the job should also be a part of the curriculum.

Employers' Perceptions of Soft Skills

Wilhelm (1999) surveyed employers in the Tempe, Arizona, vicinity to identify the skills and competencies they require of their entry-level employees. This study used a panel of 22 business professionals along with 2 educators. Three questionnaires were used in a Delphi study with each person getting each questionnaire. The round one questionnaire consisted of a list of workplace skills and competencies and definitions that were published in *Skills and Tasks for Jobs: A SCANS Report for America 2000*. Each panelist rated the skills and competencies on a 5-point Likert scale from not critical to extremely critical. Panelists were also asked to make a proof-of-performance list of ways they would evaluate the proficiency for each skill. The round two questionnaire was based on the round one questionnaire. The panelists were asked to review their rating based on the group's responses and then rate the applicability of each performance product to their own institution from somewhat applicable to extremely applicable. The round three questionnaire built on the questionnaire from round two. The previous round's ratings, the SCANS skills and competencies rankings, and the proof-of-performance products rankings were each given a final ranking. Using the Delphi technique, the mean was chosen as the measurement for comparing rating scores to ranking scores because it is a more accurate and efficient estimate of the population mean and is subject to less error than other measures of central location.

Wilhelm (1999) concluded that integrity/honesty, reading, team participation, responsibility, working with cultural diversity, serving others, and listening were the highest valued skills of employers in the Tempe, Arizona, area. The skills requiring the knowledge of technology and resource management were the least important. Hiring personnel tended to use traditional proof of performance such as neat and complete applications, resumes, letters of recommendation, lists of certificates, awards, and honors, and employer testing and interviewing. Nontraditional proof of performance products, including electronic portfolios, written essays, published articles, speeches, and personal improvement plans, demonstrate higher order skills but were not used by the employers as much. Both traditional and nontraditional proof of performance products should be created by students while they are still in school.

Soft Skills for Information Technology Positions

In 1998 and 1999, a committee of nine researchers from the University of Arkansas collected data over a 3-month period through Web research, site interviews, focus groups, and a Web-based survey to try to identify the necessary knowledge, skills, and abilities that are needed in IT jobs (Bailey & Stefaniak, 1999). Data were collected from five major Arkansas IT companies that participated in on-site interviews and focus groups and 325 IT professionals who responded to the Web-based survey. The respondents identified 8 job clusters and 32 nontechnical skills including 20 soft skills and 12 business skills. These skills were then ranked by importance. The highly valued soft skills that were identified included problem solving, listening, teamwork, adaptability to technology changes, application of knowledge, time management,

visualization skills, verbal communication, and multitasking abilities. The business skills that were found to be extremely important were customer mentality, investigation, idea initiation, and project management skills. The researchers concluded that school and companies should collaborate more to narrow the gap between what is needed by industry and what schools teach (Bailey & Stefaniak, 1999).

International Research

The United States is not the only country to adopt strategies for teaching workplace skills. The integration of employability skills into vocational curriculum has become common in Canada, the United Kingdom, and Australia (Brown, 2002). Countries vary on the term used to describe these skills, using terms such as *key skills*, *core skills*, *transferable skills*, and *employability skills*, but most lists include *communication skills*, *interpersonal skills*, *social skills*, *organization* and *planning skills*, *problem-solving skills*, *creative thinking*, *literacy*, and *technology skills* (Brown, 2002).

Summary

Thomas (2001) stated that employees who have good soft skills tend to be in higher paid positions. These employees learn a good work ethic at school, at home, and on the job. Beginning as early as the lower elementary grades, students can be taught good work ethics (Poole & Zahn, 1993). Soft skills are universally taught in school educational programs and include key skills, core skills, interpersonal skills, and creative thinking (Brown, 2002).

The Mississippi Information Technology Curricula

The curriculum for all secondary and postsecondary career technical programs in Mississippi is developed and revised by the Research and Curriculum Unit (2006) for Workforce Development at Mississippi State University. The 2006 Mississippi curriculum framework for postsecondary Computer Information Systems Technology includes curriculum for four 2-year programs, each based on the skill standards for information technology (IT) published by the National Workforce Center for Emerging Technologies at Bellevue Community College. The Computer Networking Technology program is designed to prepare students in the areas of telecommunications, network administration, and client/server systems. The Computer Programming Technology program offers training in coding and testing of business applications, network management, and computer system operations. The Web Development Technology program offers classes in Web site design, e-commerce development, server administration, graphics manipulation, Internet programming, and database interaction. The Database Administration Technology program helps students learn how to set up, administer, and maintain relational database systems (Research and Curriculum Unit, 2006).

R. Gammill (personal communication, August 12, 2008) stated that besides the statewide curriculum test, the Mississippi Career Planning Assessment Standard (MS-CPAS), the students in Mississippi's IT programs also prepare for CompTIA A+ Certification. This national certification is recognized by employers as a standard credential for information technology personnel. To become CompTIA A+ certified, the

student must pass two out of the four examinations offered. CompTIA A+ is a vendor neutral certification that was updated in September 2006. The updates for the exam included that the test taker has the opportunity to choose to specialize his or her certificate to match his or her chosen career path. The updates were intended to reflect changes in advancing technology and to ensure that the certificate meets the needs of employers and employees. Some added areas include security and safety, environmental issues, and soft skills such as communication and professionalism.

The CompTIA A+ Essentials Examination must be passed by every test taker who seeks CompTIA A+ certification (Computing Technology Industry Association, Inc., 2008). This exam is intended to measure knowledge of necessary competencies for an entry-level IT professional and includes sections on hands-on experience in the lab or field. The CompTIA A+ 220-602 exam is intended for those who wish to interact closely with clients. Some technical positions requiring this certification are enterprise technician, IT administrator, field service technician, and PC technician. Nontechnical positions such as sales personnel or small business office managers may also find this credential valuable. The CompTIA A+ 220-604 exam is intended for those who desire to work with hardware related duties. Depot technicians and bench technicians seek this credential. The CompTIA A+ 220-603 exam is for those who intend to work in an environment that is remote-based with an emphasis on client interaction, client training, operating systems, and connectivity issues. Some positions requiring this certification may be remote support technician, help desk technician, call center technician, specialist, or representative. By becoming CompTIA A+ certified, the student is more marketable in

the IT field. This can lead the student to better job opportunities, credibility in the workplace, validation of achievement in an industry-valued skill, an increase in job satisfaction, and a viable career path that could lead to higher-level positions. The CompTIA A+ certification is also beneficial to employers in the IT field because they know that certified employees are able to provide high-quality service, customers look for businesses with a certified staff, businesses show increased productivity, training costs are lower, and there is higher job retention (Computing Technology Industry Association, Inc., 2008).

The Mississippi Computer Occupations Labor Market

Datta, Pellissery, and Paul (2007) stated that an employable workforce is a critical element in the economic growth of any region. Bailey and Stefaniak (1999) suggested that the importance of various job skills, including soft skills, is geographically influenced.

The demand for entry-level employees in the IT marketplace fluctuates. During the technology growth period in the 1990s, new technologies and the creation of the Internet created new businesses and caused a great increase in the number of entry-level IT positions, however, from 2003 to 2004, the number of IS/IT positions has declined dramatically (Kim et al. 2006). New technologies, global competition, and disintegrating traditional firm structures are major factors in producing shifts in the labor market (Brenner, Brownstein, Dresser, & Leete, 2001). Recent hiring trends show an increasing demand for IS/IT professionals, but outsourcing and automation pose threats to the future

job market. It is necessary to identify the skills and abilities needed by employers in the industry and the skills and concepts that are being taught in IS/IT courses (Kim, Hsu, & Stern, 2006). Nationally, the demand for IT workers is projected to rise much faster than employment as a whole (Lerman, Riegg, & Salzman, 2000).

Labor Market Information (LMI) includes information about the number of people employed or unemployed, unemployment rates, average wages, population, income, and occupational projections. According to the Mississippi Department of Employment Security (2008), LMI showed that in 2004 in Mississippi, there were 9,860 people employed in computer and mathematical occupations fields. Of this number, 9,620 were employed in computer specialist fields including the fields of computer research, computer programmers, computer software engineers, computer support specialists, computer systems analysts, database administrators, network and computer systems administrators, data communications analysts, and all other computer specialists; 240 were employed in mathematical scientist fields such as actuaries, mathematicians, operations research analysts, statisticians, and other mathematical science occupations. LMI projected employment for 2014 for computer specialist occupations is 12,630. This means there are 3,010 new jobs projected for the near future, showing a 30.7% increase in jobs and the total projected average job openings of 425 per year between 2004 and 2014.

LMI information also shows that in the East Central Community College district in 2004, there were 120 computer specialist jobs. The projected number of positions expected for 2014 is 160, making this a 33.3% increase. In the East Mississippi

Community College and Meridian Community College combined districts in 2004, there were 670 jobs in the computer specialist field. The projected number of jobs for this area in 2014 is 850, making a 26.9% increase. In the Itawamba Community College district for the year 2004, there were 330 computer specialist positions. The projected number for 2014 is 460, making this a 36.4% increase and adding 120 new jobs. In the Northeast Mississippi Community College district in 2004, there were 150 computer specialist positions, and the projected number for 2014 is 190. This will add 40 new jobs in the field with a 26.7% increase. LMI shows overall that in the next few years, there will be an increase in jobs in computer specialist fields in the five community college districts included in this study (Mississippi Department of Employment Security, 2008).

Summary

Soft skills are vital to students entering the working world, to veteran workers, and to the employers who depend on these workers to conduct everyday tasks for their businesses (Soft Skills for Hard Times, 2004). Community colleges are the catalysts that present skills to students who will be the workers that many of the area businesses need. Echternacht and Wen (1997) pointed out that community college instructors must understand what skills the area industries need in order to provide the students with the skills and knowledge that they need in order to seek, obtain, and keep employment in the area.

As the literature showed, there were varying soft skills that employers need or want in the workplace, and there were varying soft skills that instructors in schools are

teaching. These skills also varied within geographic regions. The literature does not show which skills are needed in the IT industries of northeastern Mississippi and which skills are taught by the IT instructors at the surrounding community colleges. The labor market projections for northeast Mississippi show a projected increase in jobs in computer specialist fields within the next few years. There are many school programs and many government policies that have been put into place to help facilitate the instruction of these skills, but knowing which skills the employers want and knowing that the instructors are teaching these skills is the topic in question. With the information from this research, the IT instructors at the five community colleges outlined can better arm themselves with the knowledge that employers in these areas have affirmed the skills they perceive to be vital for the workforce of the area.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine the perceptions of information technology (IT) instructors and employers regarding soft skills in the workplace. This study investigated the perceptions of instructors at five community colleges in northeast Mississippi and employers in these five community college districts. This section provides a description of the methods and materials that were used in data collection and analysis for this study. The topics included in this chapter are research design, participants, instrumentation, procedures, and data analysis.

Research Design

This study used a survey research design. Fraenkel and Wallen (2006) stated that in survey research, information is collected by asking questions of a sample group of people in order to describe characteristics such as opinions, attitudes, or beliefs of the population. This study explored the differences in soft skills perceptions between sample groups of information technology (IT) instructors and employers in order to describe the perceptions of soft skills in the workplace of the populations of IT instructors at five community colleges in northeastern Mississippi and of the employers of the same area.

Participants

Prior to the beginning of this research, approval from the Mississippi State University Institutional Review Board for the Protection of Human Subjects in Research (IRB) was acquired. Permission was granted from the presidents of Mississippi Gulf Coast Community College, Northeast Mississippi Community College, Itawamba Community College, East Central Community College, East Mississippi Community College, and Meridian Community College to survey the information technology instructors at these community colleges. All approvals were complete before any surveys were conducted.

The participants of this study included samples from two populations: (a) instructors of computer information systems technology courses from five northeastern community colleges of Mississippi, and (b) industry personnel from the same region. The instructors were identified initially from the individual community college web site pages and then verified with each community college president when obtaining permission to survey. The companies chosen to participate were selected by systematic sampling with a random start from the MNI Manufacturers' News, Inc. database. This database contains comprehensive demographic information about companies in certain geographic regions and is publicly available from http://www.manufacturersnews.com. The employers included in this study were from manufacturing and nonmanufacturing fields. Participants were identified as such and asked to participate voluntarily.

Instrumentation

In the last few years, the use of Web-based surveys has increased considerably. Some advantages of Web-based survey instruments include that these surveys are easier to complete than paper surveys, there is flexibility in the time and place to respond, and there is a greater level of confidentiality because there are no handwritten comments. Some disadvantages of online surveys include the fact that it is easy for the potential participant to overlook the invitation to respond, resulting in a smaller survey size, and there is a chance that technology problems could occur (Ballantyne, 2000). Muffo, Sinclair, and Robson (2003) reported that advantages of online surveys include that they generally involve lower costs, have faster response rates, and provide more effective data collection than traditional mail surveys. Online data collection also reduces the chances for data input errors.

For this study, a cross-sectional survey instrument was administered online. Fraenkel and Wallen (2006) stated that a cross-sectional survey collects data from a sample of the population at one point in time. The survey was based on a survey that was developed by the Foundation for an Independent Tomorrow (FIT) (n.d.). The FIT Soft Skills Survey measured employers' perceptions of the importance of soft skills such as communication, motivation, leadership, and time management. This survey was answered with a Likert-based scale. The survey is provided in Appendix A of this document.

Reliability is the consistency of the instrument each time the instrument is used (Fraenkel & Wallen, 2006). Using the data provided by FIT, the internal consistency of

the FIT Soft Skills Survey was measured using Cronbach's alpha. Cronbach's alpha is based on the mean correlation for all possible variable pairs, and it provides a conservative estimate of reliability. When measuring the 25 items on the FIT survey, the reliability statistic was 0.834. According to Fraenkel and Wallen, reliability should be at least 0.70 and preferably higher. This shows internal consistency of the survey instrument.

According to Fraenkel and Wallen (2006), validity refers to the appropriateness, correctness, meaningfulness, and usefulness of the conclusions researchers make. Content-related evidence of validity refers to the adequate coverage of a topic and to the questions' coverage of all aspects of the topic as well as the inclusion of open-ended questions. Because the FIT Soft Skills Survey (FIT) (n.d.) was used to survey employers in Nevada, the validity was established for that purpose. In order to check the validity of this instrument for this study, a panel of experts in the field of education reviewed the survey instrument and suggested several changes if this survey were to be used for this study. These suggestions included adding demographic questions that focused on instructors and employers separately, categorizing the questions by grouping them by topic, and making punctuation suggestions. They also pointed out that some of the skills listed were not relevant to the students of IT programs. These skills included the following: able to keyboard quickly and accurately, comfortable using a computer, comfortable learning new computer programs, and comfortable using or learning to use fax and copy machines. The experts pointed out that these skills would all get the highest scores because the students should be proficient at these skills. A determination was

made that the FIT survey was not a valid survey instrument for this study. A new survey aimed at IT instructors and employers of IT students was created. The Soft Skills Survey for Instructors and Employers is located in Appendix B of this document. In order to verify its validity and reliability, the new survey was piloted at another Mississippi community college district with IT instructors and employers of the same district.

The online survey system that was used for this study was the Snap survey software. This software is a suite of integrated software programs that enables the user to design questionnaires, collect data, and perform analyses. Using Snap, researchers are able to send e-mail invitations and reminders as well as keep track of responses and unfinished surveys (Jenkins & Wills, 1981).

Before piloting the Soft Skills Survey for Instructors and Employers, approval was granted from the Mississippi State University Institutional Review Board for the Protection of Human Subjects. The approval letter for this study (#09-062) is located in Appendix C of this document.

After permission was obtained from the president of Mississippi Gulf Coast Community College (MGCCC) (see Appendix D) an e-mailed invitation requesting participation in the pilot Soft Skills Survey for Instructors and Employers was sent to the information technology instructors at MGCCC through the Snap survey software. Survey invitations were also sent to business professionals in the four counties of the MGCCC district. The e-mailed invitation explained the time obligation and that all respondents' confidentiality would be protected. Upon completion of the online instrument, a thank-

you response was sent confirming their part in helping with this study and instructors and employers submitted their responses to a secure database.

In order to check the content validity of the Soft Skills Survey for Instructors and Employers for this study, a panel of experts in the field of education reviewed the survey instrument. A determination was made that the survey was a valid survey instrument for this study.

Using the data collected from the piloted Survey for Instructors and Employers, internal consistency was measured using Cronbach's alpha. The reliability statistic for the 25 items was 0.844. This showed the internal consistency of the survey instrument.

Data Collection Procedures

Permission was obtained from the five community college presidents or their appointees to send a survey invitation to information technology instructors at these community colleges whose names and e-mail addresses were collected from each community college Web site. These permission letters are located in Appendix E of this document. After permission was granted, an invitation to participate in the Soft Skills Survey for Instructors and Employers was sent to these instructors. (See Appendix F.) An invitation was also sent to businesses within these community college districts whose names and e-mail addresses were selected by systematic sampling with a random start from the MNI Manufactures' News, Inc. database. (See Appendix G.)

Upon completion of the online instrument, instructors and employers received a thank you message before submitting their responses to a secure database located at the

Research and Curriculum Unit at Mississippi State University. Initially, two weeks were allowed for the submission of the online surveys. Subsequent e-mail reminders to non-responders were sent to improve response ratios. (See Appendix H.) After a response rate of 68.75% was achieved, the data were analyzed.

Data Analysis

The data collected through the submission of the Soft Skills Survey for Instructors and Employers were compiled and analyzed using a 0.05 (alpha) significance level. The data collected were statistically analyzed using SPSS software. The data from the group of IT instructors and the data from the group of employers were compared using descriptive statistics. An analysis of variance (ANOVA) was used to determine if there were any significant differences between the two groups of data. The statistical tests used for this study also included Cronbach's alpha, frequency distributions, confidence intervals, analysis of variance, and *t*-tests for independent samples of means.

Summary

The purpose of this study was to collect and analyze data concerning the perceptions of IT instructors and employers on the topic of soft skills in the workplace. After obtaining IRB approval, the Survey for Instructors and Employers was piloted and then sent to IT instructors at five community colleges in northeast Mississippi and employers within the same five community college districts. The survey instrument was submitted by the participants to a secure database located at the Research and Curriculum

Unit at Mississippi State University. The data collected was compiled and analyzed at the 0.05 alpha level using SPSS software.

CHAPTER IV

FINDINGS

This study sought to investigate the perceptions of instructors and employers from five community college districts of northeast Mississippi about the importance of soft skills in the workplace. This chapter presents a description of the data collected in this study and a statistical analysis of the data.

Sample

The sample for this study included instructors of computer information systems technology courses from five northeastern community college districts of Mississippi and industry personnel from the same districts. The instructors were identified from the individual community college Web pages and then verified with each community college president when obtaining permission to survey. The entire population of instructors (N=19) was sent invitations to complete the survey through the Snap online survey software and a total of 16 surveys were completed by the group of instructors. The population of employers from the counties within the districts of these five community colleges (N=1,112) were identified through the MNI Manufacturers' News, Inc. database that contains comprehensive demographic information. The companies chosen to participate were selected by systematic sampling with a random start. Of the companies

selected, those with no e-mail address were rejected. The 40 businesses with viable email addresses were sent invitations to complete the survey through the Snap online survey software. Of these, 11 were undeliverable leaving 48 legitimate total contacts. Two of these were incomplete and were not used, but a total of 17 surveys were completed by employers. The instructors sample group (n=16) and the employers sample group (n=17) totaled 33 completed surveys.

Descriptive Data

Demographic data collected from instructors included classes taught, years of teaching experience, and organizations that may hire the students they have taught. The instructors completing the survey reported that the classes they taught included Computer Concepts, Computer Networking, Computer Programming, Computer Servicing, Fundamentals of Microcomputer Applications, Operating Platforms, Visual Basic Programming, and Web Development. Of these instructors, 68.8% reported that that they had 10 or more years of teaching experience, while 18.8% had 7 to 10 years of experience. In a non-mutually-exclusive question, the instructors were asked what organizations hire the students they teach. Of the instructors answering the survey, 81.3% indicated that their students were hired by the services industry, 75% indicated that their students were hired by either the sales industry or the manufacturing industry, 50% indicated that their students were hired by nonprofit businesses, and 12.5% indicated that other types of industries hired their students.

Demographic data collected from employers in this study included the number of years the organization had been in business, the type of organization, and the number of employees at that organization. Employers taking this survey reported that 75% of their organizations had been in business for 10 or more years, while 25% had been in business for 7 to 10 years. In a non-mutually exclusive question, the survey asked what type of industry within which the employer's business resides. The employers responded that 23.5% were in sales industries, 11.8% were in service industries, and 70.6% were in manufacturing industries, and 5.9% selected other. The employers reported the number of employees in their organization: 87% of organizations had 1–500 employees while 12.5% had over 500 employees.

Questions 2.1 through 2.25 of the instrument asked respondents to respond using a four-point Likert-type scale. The responses were recorded with (a) not at all important, (b) slightly important, (c) important, and (d) extremely important. Table 4.1 indicates that instructors responded with 100% and employers responded with 88.3% that they perceived "communicates clearly verbally" to be either an important or an extremely important soft skill.

Table 4.1

Response to Question 2.1 – Communicates Clearly Verbally

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	11.7%
Important	18.8%	41.2%
Extremely important	81.2%	47.1%

Table 4.2 indicates that instructors responded with 100% that they perceived "communicates clearly in writing" to be either an important or an extremely important soft skill. Employers responded with 88.3% as important or extremely important to this question.

Table 4.2

Response to Question 2.6 – Communicates Clearly in Writing

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	11.7%
Important	18.8%	41.2%
Extremely important	81.2%	47.1%

As Table 4.3 shows, instructors and employers both perceived "reads instructions and comprehends them accurately" to be an essential soft skill. Both groups answered 100% as important or extremely important.

Table 4.3

Response to Question 2.3 – Reads Instructions and Comprehends Them Accurately

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	6.3%	17.6%
Extremely important	93.7%	82.4%

"Listens effectively" was perceived to be essential for instructors and employers. One-hundred percent of the instructors selected this to be an extremely important soft skill, and all of the employers answering the survey selected it to be important or extremely important. Table 4.4 shows these results.

Table 4.4

Response for Question 2.4 – Listens Effectively

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	0.0%	17.6%
Extremely important	100.0%	82.4%

Table 4.5 shows the responses for "understands and practices good telephone etiquette." All of the instructors and 93.1% of the employers perceived this to be important or extremely important.

Table 4.5

Response for Question 2.5 – Understands and Practices Good Telephone Etiquette

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	5.9%
Important	43.8%	41.2%
Extremely important	56.2%	52.9%

The results shown in Table 4.6 indicate dispersed perceptions. Almost 81% of instructors perceived "is able to write a formal business letter" as important or extremely important, while only about 30% of employers believed it to be important or extremely important.

Table 4.6

Response for Question 2.6 – Is Able to Write a Formal Business Letter

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	5.9%
Slightly important	18.8%	35.3%
Important	18.8%	29.4%
Extremely important	62.4%	29.4%

Table 4.7 shows the responses for question 2.7. All of the instructors completing this survey perceived "is self-motivated" to be important or extremely important, while 93.1% of employers taking this survey perceived this to be important or extremely important.

Table 4.7

Response for Question 2.7 – Is Self-Motivated

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	5.9%
Important	6.2%	17.6%
Extremely important	93.8%	76.5%

Instructors and employers both perceived “exhibits creative problem solving” to be important or extremely important. This is shown in Table 4.8.

Table 4.8

Response for Question 2.8 – Exhibits Creative Problem Solving

Level of Importance	Instructors (*n*=15)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	13.3%	23.5%
Extremely important	86.7%	76.5%

Table 4.9 addresses the responses for question 2.9. Instructors and employers both perceived "adapts to changes easily" to be important or extremely important, but more instructors perceived this to be extremely important than employers did.

Table 4.9

Response for Question 2.9 – Adapts to Changes Easily

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	6.2%	35.3%
Extremely important	93.8%	64.7%

The results in Table 4.10 show that 93.3% of instructors answering this survey perceived "exhibits leadership among peers" as important or extremely important. Only 76.5% of employers believed this soft skill to be important or extremely important.

Table 4.10

Response for Question 2.10 – Exhibits Leadership among Peers

Level of Importance	Instructors (*n*=15)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	6.7%	23.5%
Important	53.3%	47.1%
Extremely important	40.0%	29.4%

All of the instructors and the employers perceived "works as a team player" to be important or extremely important. Table 4.11 shows these results.

Table 4.11

Response for Question 2.11 – Works as a Team Player

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	6.2%	29.4%
Extremely important	93.8%	70.6%

Table 4.12 indicates that instructors and employers perceived "displays self-confidence" as a vital soft skill. Both groups answered important or extremely important for this question.

Table 4.12

Response for Question 2.12 – Displays Self-Confidence

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	31.2%	52.9%
Extremely important	68.8%	47.1%

The results of question 2.13 are shown in Table 4.13. Instructors and employers answered "displays good manners" as 100% for this question.

Table 4.13

Response for Question 2.13 – Displays Good Manners

Level of Importance	Instructors (*n*=16)	Employers (*n*=16)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	43.8%	37.5%
Extremely important	56.2%	62.5%

There were 93.8% of instructors who answered important or extremely important to the question of "exhibits high energy level." There were 88.3% of employers who answered important or extremely important to this question.

Table 4.14

Response for Question 2.14 – Exhibits High Energy Level

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	6.2%	11.7%
Important	56.3%	47.1%
Extremely important	37.5%	41.2%

Table 4.15 shows that 93.8% of instructors and 100% of employers perceived that "works well under pressure" is an important or an extremely important soft skill.

Table 4.15

Response for Question 2.15 – Works Well Under Pressure

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	6.2%	0.0%
Important	25.0%	41.2%
Extremely important	68.8%	58.8%

Table 4.16 shows that instructors and employers agreed that "asks appropriate questions" is an essential soft skill. Both groups answered 100% as important or extremely important.

Table 4.16

Response for Question 2.16 – Asks Appropriate Questions

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	18.8%	35.3%
Extremely important	81.2%	64.7%

Table 4.17 indicates the results of Question 2.17, "learns quickly" was perceived to be important or extremely important by 100% of the instructors. Only 89.2% of the employers perceived it this way.

Table 4.17

Response for Question 2.17 – Learns Quickly

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	11.7%
Important	43.8%	29.5%
Extremely important	56.2%	58.8%

Table 4.18 indicates that instructors and employers both perceived "pays attention to detail" to be a vital soft skill. Both groups answered 100% as important or extremely important.

Table 4.18

Response for Question 2.18 – Pays Attention to Detail

Level of Importance	Instructors (*n*=16)	Employers (*n*=16)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	31.2%	18.8%
Extremely important	68.8%	81.2%

As Table 4.19 shows, instructors and employers both perceived "has good time management skills" to be a fundamental soft skill. Both groups answered 100% as important or extremely important to this question.

Table 4.19

Response for Question 2.19 – Has Good Time Management Skills

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	31.2%	29.4%
Extremely important	68.8%	70.6%

As Table 4.20 shows, instructors and employers both perceived "follows through on commitments" to be a necessary soft skill. Both groups answered 100% as important or extremely important.

Table 4.20

Response to Question 2.20 – Follows Through on Commitments

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	0.0%
Important	6.2%	17.6%
Extremely important	93.8%	82.4%

The results shown in Table 4.21 indicate that instructors perceived "dresses appropriately" to be important or extremely important. Only 64.7% of employers perceived it this way.

Table 4.21

Response for Question 2.21 – Dresses Appropriately

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	5.9%
Slightly important	0.0%	29.4%
Important	43.7%	35.3%
Extremely important	56.3%	29.4%

Table 4.22 indicates that 100% of the instructors completing this survey perceived "is able to multitask effectively" as important or extremely important. There were 82.4% of the employers who viewed this as important or extremely important.

Table 4.22

Response for Question 2.22 – Is Able to Multitask Effectively

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	0.0%	17.6%
Important	31.2%	41.2%
Extremely important	68.8%	41.2%

One-hundred percent of the instructors completing this survey perceived "works well with cultural diversity" to be important or extremely important, while only 76.5% of employers viewed this as important or extremely important. Table 4.23 shows these results.

Table 4.23

Response to Question 2.23 – Works Well With Cultural Diversity

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	5.9%
Slightly important	0.0%	17.6%
Important	56.3%	35.3%
Extremely important	43.7%	41.2%

Table 4.24 shows the results to question 2.24. It indicates that 43.8% of the instructors and 76.5% of the employers perceived that "motivates others" is either an important or an extremely important soft skill.

Table 4.24

Response to Question 2.23 – Motivates Others

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	6.2%	0.0%
Slightly important	0.0%	17.6%
Important	50.0%	47.1%
Extremely important	43.8%	35.3%

The results shown in Table 4.25 indicate the responses for Question 2.25. "Exhibits good negotiation skills" was perceived as important or extremely important by 93.8% of the instructors and 76.5% of the employers completing this survey.

Table 4.25

Response to Question 2.25 – Exhibits Good Negotiation Skills

Level of Importance	Instructors (*n*=16)	Employers (*n*=17)
Not at all important	0.0%	0.0%
Slightly important	6.2%	23.5%
Important	43.8%	41.2%
Extremely important	50.0%	35.3%

Question 3 on the survey instrument asked, "Are there any other soft skills that you believe are necessary in the workplace? If so, please list them." The answers to question 3 follow.

1. "Correct grammar"
2. "A good sense of humor"
3. "Honesty"
4. "Logical thinking"
5. "Dining etiquette"
6. "Exhibits a positive can-do attitude"
7. "Handles criticism/recommendations professionally"
8. "Participates in company social environment"

Statistical Data Analysis

The data for this study were collected using the Soft Skills Survey for Instructors and Employers. These data were statistically analyzed with SPSS software.

The reliability statistic performed was the Cronbach's alpha test for reliability that is based on the mean correlation for all possible variable pairs. The results showed 0.844 for the 25 items on the piloted survey and 0.907 for the 25 items on the actual survey. This can be compared to the FIT survey for employers described earlier that had reliability of 0.834. These statistics show that the Survey for Instructors and Employers instrument has a consistent internal reliability.

The Levene's Test for Equality of Variance was conducted to verify that the variances are equal across the sample groups. A *t*-test for independent means was used to compare the results of the mean scores of the samples of instructors and the samples of employers to see if these groups differed significantly. A 0.05 alpha level was used. A significant difference between the two groups of means was noted for any significance level for the two-tailed test of less than 0.05. The confidence interval of the difference of the means was also tested at the 0.05 alpha level. Differences existed between the groups if significance levels had values of less than 0.05. These data are shown in Table 4.26.

Table 4.26

Independent Samples Test

Independent Samples Test

		Equality of Variances		t-test for Equality of Means						
									of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Q2.1	Equal variances assumed	9.35	0.00	2.29	31.00	0.029*	0.46	0.20	0.05	0.87
Q2.2	Equal variances assumed	9.35	0.00	2.29	31.00	0.029*	0.46	0.20	0.05	0.87
Q2.3	Equal variances assumed	4.39	0.04	0.99	31.00	0.33	0.11	0.12	-0.12	0.35
Q2.4	Equal variances assumed	20.87	0.00	1.79	31.00	0.08	0.18	0.10	-0.02	0.38
Q2.5	Equal variances assumed	1.25	0.27	0.46	31.00	0.65	0.09	0.20	-0.32	0.50
Q2.6	Equal variances assumed	0.38	0.54	1.99	31.00	0.06	0.61	0.31	-0.02	1.24
Q2.7	Equal variances assumed	10.07	0.00	1.46	31.00	0.16	0.23	0.16	-0.09	0.56
Q2.8	Equal variances assumed	2.21	0.15	0.72	30.00	0.48	0.10	0.14	-0.19	0.39
Q2.9	Equal variances assumed	27.96	0.00	2.11	31.00	0.043*	0.29	0.14	0.01	0.57
Q2.10	Equal variances assumed	0.02	0.89	1.12	30.00	0.27	0.27	0.24	-0.22	0.77
Q2.11	Equal variances assumed	17.24	0.00	1.75	31.00	0.09	0.23	0.13	-0.04	0.50
Q2.12	Equal variances assumed	2.41	0.13	1.25	31.00	0.22	0.22	0.17	-0.14	0.57
Q2.13	Equal variances assumed	0.45	0.51	-0.35	30.00	0.73	-0.06	0.18	-0.43	0.30
Q2.14	Equal variances assumed	0.37	0.55	0.08	31.00	0.94	0.02	0.23	-0.44	0.48
Q2.15	Equal variances assumed	0.15	0.70	0.19	31.00	0.85	0.04	0.20	-0.36	0.44
Q2.16	Equal variances assumed	4.59	0.04	1.05	31.00	0.30	0.17	0.16	-0.16	0.49
Q2.17	Equal variances assumed	2.56	0.12	0.42	31.00	0.68	0.09	0.22	-0.35	0.54
Q2.18	Equal variances assumed	2.61	0.12	-0.80	30.00	0.43	-0.13	0.16	-0.44	0.19
Q2.19	Equal variances assumed	0.05	0.83	-0.11	31.00	0.91	-0.02	0.17	-0.36	0.32
Q2.20	Equal variances assumed	4.39	0.04	0.99	31.00	0.33	0.11	0.12	-0.12	0.35
Q2.21	Equal variances assumed	3.50	0.07	2.58	31.00	0.015*	0.68	0.26	0.14	1.22
Q2.22	Equal variances assumed	3.65	0.07	2.04	31.00	0.05	0.45	0.22	0.00	0.90
Q2.23	Equal variances assumed	2.90	0.10	1.22	31.00	0.23	0.32	0.26	-0.22	0.86
Q2.24	Equal variances assumed	0.02	0.90	0.51	31.00	0.61	0.14	0.26	-0.40	0.68
Q2.25	Equal variances assumed	0.23	0.63	1.29	31.00	0.21	0.32	0.25	-0.19	0.83

An analysis of variance (ANOVA) was conducted to examine any differences between and within the group of instructors and the group of employers. A statistically significant difference at the 0.05 alpha level was found for questions Q2.1, Q2.2, Q2.9, and Q2.21.These data are shown in Table 4.27.

Table 4.27

Analysis of Variance

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Q2.1	Between Groups	1.741	1	1.741	5.229	0.029*
	Within Groups	10.320	31	0.333		
	Total	12.061	32			
Q2.2	Between Groups	1.741	1	1.741	5.229	0.029*
	Within Groups	10.320	31	0.333		
	Total	12.061	32			
Q2.3	Between Groups	0.107	1	0.107	0.974	0.331
	Within Groups	3.408	31	0.110		
	Total	3.515	32			
Q2.4	Between Groups	0.257	1	0.257	3.221	0.082
	Within Groups	2.471	31	0.080		
	Total	2.727	32			
Q2.5	Between Groups	0.070	1	0.070	0.212	0.648
	Within Groups	10.173	31	0.328		
	Total	10.242	32			
Q2.6	Between Groups	3.107	1	3.107	3.946	0.056
	Within Groups	24.408	31	0.787		
	Total	27.515	32			
Q2.7	Between Groups	0.442	1	0.442	2.120	0.155
	Within Groups	6.467	31	0.209		
	Total	6.909	32			
Q2.8	Between Groups	0.083	1	0.083	0.519	0.477
	Within Groups	4.792	30	0.160		
	Total	4.875	31			
Q2.9	Between Groups	0.695	1	0.695	4.472	0.043*
	Within Groups	4.820	31	0.155		
	Total	5.515	32			
Q2.10	Between Groups	0.600	1	0.600	1.262	0.270
	Within Groups	14.275	30	0.476		
	Total	14.875	31			
Q2.11	Between Groups	0.442	1	0.442	3.069	0.090
	Within Groups	4.467	31	0.144		
	Total	4.909	32			
Q2.12	Between Groups	0.388	1	0.388	1.567	0.220
	Within Groups	7.673	31	0.248		
	Total	8.061	32			
Q2.13	Between Groups	0.310	1	0.031	0.122	0.729
	Within Groups	7.688	30	0.256		
	Total	7.719	31			

Table 4.27

Analysis of Variance (Continued)

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Q2.14	Between Groups	0.003	1	0.003	0.007	0.935
	Within Groups	12.967	31	0.418		
	Total	12.970	32			
Q2.15	Between Groups	0.011	1	0.011	0.035	0.853
	Within Groups	9.868	31	0.318		
	Total	9.879	32			
Q2.16	Between Groups	0.266	1	0.226	1.107	0.301
	Within Groups	6.320	31	0.204		
	Total	6.545	32			
Q2.17	Between Groups	0.070	1	0.070	0.177	0.677
	Within Groups	12.173	31	0.393		
	Total	12.242	32			
Q2.18	Between Groups	0.125	1	0.125	0.638	0.431
	Within Groups	5.875	30	0.196		
	Total	6.000	31			
Q2.19	Between Groups	0.003	1	0.003	0.012	0.912
	Within Groups	6.967	31	0.225		
	Total	6.970	32			
Q2.20	Between Groups	0.107	1	0.107	0.974	0.331
	Within Groups	3.408	31	0.110		
	Total	3.515	32			
Q2.21	Between Groups	3.813	1	3.813	6.677	0.015*
	Within Groups	17.702	31	0.571		
	Total	21.515	32			
Q2.22	Between Groups	1.685	1	1.685	4.181	0.049
	Within Groups	12.496	31	0.403		
	Total	14.182	32			
Q2.23	Between Groups	0.843	1	0.843	1.477	0.233
	Within Groups	17.702	31	0.571		
	Total	18.545	32			
Q2.24	Between Groups	0.153	1	0.153	0.264	0.611
	Within Groups	17.908	31	0.578		
	Total	18.061	32			
Q2.25	Between Groups	0.843	1	0.843	1.665	0.207
	Within Groups	15.702	31	0.507		
	Total	16.545	32			

Also used to analyze statistical data for this study was descriptive data. For each question, the number of answers, the mean, the standard deviation, the standard error of the mean, the upper and lower bound for the mean, and a minimum and maximum for each answer are given. These data can be found in Table 4.28. In Table 4.28, numeral 1 represents the instructors who responded to this survey, and numeral 2 represents the employers who responded to this survey.

Table 4.28

Descriptives

		n	Mean	Std. Dev.	Std. Error
Q2.1	1	16	3.81	0.403	0.101
	2	17	3.35	0.702	0.170
Q2.2	1	16	3.81	0.403	0.101
	2	17	3.35	0.702	0.170
Q2.3	1	16	3.94	0.250	0.063
	2	17	3.82	0.393	0.095
Q2.4	1	16	4.00	0.000	0.000
	2	17	3.82	0.393	0.095
Q2.5	1	16	3.56	0.512	0.128
	2	17	3.47	0.624	0.151
Q2.6	1	16	3.44	0.814	0.203
	2	17	2.82	0.951	0.231
Q2.7	1	16	3.94	0.250	0.063
	2	17	3.71	0.588	0.143
Q2.8	1	15	3.87	0.352	0.091
	2	17	3.76	0.437	0.106
Q2.9	1	16	3.94	0.250	0.063
	2	17	3.65	0.493	0.119
Q2.10	1	15	3.33	0.617	0.159
	2	17	3.06	0.748	0.181
Q2.11	1	16	3.94	0.250	0.063
	2	17	3.71	0.470	0.114
Q2.12	1	16	3.69	0.479	0.120
	2	17	3.47	0.514	0.125
Q2.13	1	16	3.56	0.512	0.128
	2	16	3.63	0.500	0.125

Note. 1 = Instructors, 2 = Employers

Table 4.28

Descriptives (Continued)

		n	Mean	Std. Dev.	Std. Error
Q2.14	1	16	3.31	0.403	0.101
	2	17	3.29	0.702	0.170
Q2.15	1	16	3.63	0.403	0.101
	2	17	3.59	0.702	0.170
Q2.16	1	16	3.81	0.250	0.063
	2	17	3.65	0.393	0.095
Q2.17	1	16	4.56	0.000	0.000
	2	17	3.47	0.393	0.095
Q2.18	1	16	3.69	0.512	0.128
	2	16	3.81	0.624	0.151
Q2.19	1	16	3.69	0.814	0.203
	2	17	2.71	0.951	0.231
Q2.20	1	16	3.94	0.250	0.063
	2	17	3.82	0.588	0.143
Q2.21	1	16	3.56	0.352	0.091
	2	17	3.88	0.437	0.106
Q2.22	1	16	3.69	0.250	0.063
	2	17	3.24	0.493	0.119
Q2.23	1	16	3.44	0.617	0.159
	2	17	3.12	0.748	0.181
Q2.24	1	16	3.31	0.250	0.063
	2	17	3.18	0.470	0.114
Q2.25	1	16	3.44	0.479	0.120
	2	17	3.12	0.514	0.125

Note. 1 = Instructors, 2 = Employers

Major Findings

The data for this study were collected with the Survey for Instructors and Employers and then statistically analyzed using SPSS software. The analysis of the data collected determined that there was a statistically significant difference between the perceptions of the instructors and the perceptions of the employers for questions 2.1 (communicates clearly verbally), 2.2 (communicates clearly in writing), 2.9 (adapts to changes easily), and 2.21 (dresses appropriately).

Question 2.1 was "communicates clearly verbally." Of the instructors, 81.2% responded that this soft skill is extremely important and 18.8% responded that this is an important soft skill, while 47.1% of the employers responded that this was extremely important, 41.2% responded that this was important, and 11.7% responded that this was slightly important. On the four-point Likert scale, the mean response for instructors was 3.81, and for employers it was 3.35. For Question 2.1, the analysis of variance (ANOVA) resulted in a significance value of 0.029, which was below the 0.05 alpha level indicating a significant difference in the means of the two populations studied. A notable finding was that the instructors placed more importance on this question than employers.

For Question 2.2, "communicates clearly in writing," all of the instructors answered either important or extremely important, while 47.1% of employers answered extremely important, 41.2% answered important, and 11.7% answered slightly important. On the four-point Likert scale, the mean response for instructors was 3.81, and for employers it was 3.35. The ANOVA resulted in a significance value of 0.029, which was below the 0.05 alpha level indicating a significant difference in the means of the two

populations studied. The instructors placed more importance on this question than the employers did.

For Question 2.9, "adapts to changes easily," the instructors answered with 93.8% extremely important and 6.2% important, while 64.7% of employers answered extremely important, and 35.3% answered important. On the four-point Likert scale, the mean response for instructors was 3.94, and for employers it was 3.65. The ANOVA for this question resulted in a significance value of 0.043, which was below the 0.05 alpha level indicating a significant difference in the means of the two populations studied. The instructors placed more importance on this question than the employers did.

Question 2.21 was "dresses appropriately." For this question, 56.3% of instructors answered extremely important, and 43.7% answered important, while 29.4% of employers answered extremely important, 35.3 % answered important, 29.4% answered slightly important, and 5.9% answered not at all important. The mean response for instructors on this question was 3.56, and for employers it was 2.88. The ANOVA resulted in a significance value of 0.015, which was below the 0.05 alpha level indicating a significant difference in the means of the two populations studied. The instructors also placed more importance on this question than the employers did.

Analysis of the data from this study suggests that there was no significant difference in the perceptions of instructors and employers for the other 21 soft skills questions on the survey. An interesting observation in this study is that 100% of the instructors answered extremely important to question 2.4, "listens effectively." This

shows that instructors want students to listen. In the traditional classroom, the instructor teaches and the students listen.

Another interesting finding of this study is that 6.3% of the instructors answered "motivates others" as not at all important. Also, of the employers, 5.9% answered "is able to write a formal business letter" as not at all important, 5.9% answered "dresses appropriately as not at all important, and 5.9% answered "works well with cultural diversity" as not at all important.

Research Questions

Research question 1: What are the perceptions of community college information technology instructors in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace? In the study by Echternacht and Wen (1997), business teachers in secondary schools were surveyed about their perceptions of the importance of workplace competencies. The study showed that teachers with all levels of experience perceived interpersonal skills to be one of the most important skills of the workplace.

This study collected data from 16 information technology instructors from five community college districts in northeastern Mississippi in an effort to obtain their perceptions of the soft skills that are needed in the workplace. The findings of this study revealed that community college information technology instructors in northeast Mississippi perceive the soft skills listed on the Survey for Instructors and Employers are needed in the workplace. The analysis of the data from this study shows that of the soft skills listed, only one, "motivates others," was answered by the instructors with 6.3% as

not at all important. This question was answered by the rest of the instructors as extremely important or important. The other 24 soft skills listed on the survey were perceived by the instructors as either slightly important, important, or extremely important for the workplace. The instructors responded by a majority that all 25 soft skills listed were either slightly important, important, or extremely important. These results indicate that instructors perceived the soft skills listed on the Soft Skills Survey for Instructors and Employers are needed in the workplace.

Research question 2: What are the perceptions of employers who may employ information technology graduates in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace? In the study by the Michigan Employability Skills Task Force ("Future Requirements: Workforce Skills," 1993), business leaders were asked what the most necessary skills for the workplace were. Academic skills were viewed as the least important skills, while behavioral skills such as honesty, respect, and punctuality were perceived as the most necessary.

In this study, data were collected from 17 employers from a 21-county region of northeastern Mississippi in an effort to obtain their perceptions of the soft skills that are needed in the workplace. The data collected and analyzed showed that employers in northeastern Mississippi perceived the soft skills listed as extremely important, important, or slightly important. Only three questions, "is able to write a formal business letter," "dresses appropriately," and "works well with cultural diversity" were answered as not at all important by 5.9% of the employers. These results indicate that instructors perceive

the soft skills listed on the Soft Skills Survey for Instructors and Employers are needed in the workplace.

Research question 3: Is there a significant difference between the perceptions of the importance of soft skills of community college information technology instructors in the northeastern counties of Mississippi and of the employers of the same area? In a study conducted by North and Worth (1998), interpersonal skills and basic skills were analyzed to determine if the changing workplace still needed the skills identified in the SCANS report. They concluded that interpersonal skills and basic skills were still important in the workplace.

The data collected and analyzed in this study revealed significant differences between the group of instructors and the group of employers for four soft skills. These soft skills were "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately."

Question 2.1, "communicates clearly verbally," was perceived as a more important soft skill by the instructors than by the employers. All of the instructors answered this as important or extremely important, while only 88.3% of the employers perceived this soft skill to be at least important. Question 2.2, "communicates clearly in writing," was perceived as a more important soft skill by the instructors than by the employers because all of the instructors answered this as important or extremely important and 88.3% of the employers perceived this soft skill to be at least important.

Question 2.9, "adapts to changes easily," was perceived as a more important soft skill by the instructors than by the employers because 93.8% of the instructors answered

this as extremely important and 64% of the employers perceived this soft skill to be extremely important. Question 2.21, “dresses appropriately,” was viewed as more important by the instructors because 56.3% of the instructors answered this as an extremely important soft skill, while only 29.4% of the employers answered this as an extremely important soft skill.

All four of the soft skills that had a significant difference between the answers of the instructors and the answers of the employers had a higher number of instructors than employers perceiving that these were extremely important soft skills. This reason for this can be viewed in the differences between the classroom and the workplace.

The soft skills, “communicates clearly verbally,” and “communicates clearly in writing,” are definitely soft skills that are needed in the classroom setting. Instructors teach and expect communication skills in the learning environment and in this setting these are extremely important skills to have. Instructors also perceived these skills as important skills to have when a person is looking for a job, and they try to prepare their students to be able to communicate verbally and in writing in order to prepare a resume, cover letters, and to interview for jobs.

The soft skill, “adapts to changes easily” may have been viewed as more important by instructors because their students may have several different jobs in their working career. The instructors want students to be able to adapt to different situations so that they can be better prepared to interview, get, and keep a job. Students may encounter many different changes within their working career and instructors feel that it is important that they foster this skill so their students will be able to adapt to these changes.

The soft skill, “dresses appropriately” may have been viewed as more important by instructors because this is important when interviewing. Instructors perceive this is an important soft skill because when students dress appropriately for interviews, they seem better prepared to get and keep a job.

Employers did not perceive the soft skills, “communicates clearly verbally,” “communicates clearly in writing,” “adapts to changes easily,” and “dresses appropriately” to be as important as instructors did because employers may be looking for an employee who will do the job that is required of them. After they are hired, employers may not need employees to have the communication skills to give presentations, or write essays. Most employers want their employees to stay with their companies and not change to another position and many times dressing appropriately is not applicable in a casual office or factory setting. Employers still perceived these to be important soft skills to have in the workplace, but they did not put as much importance on them as instructors did.

Summary

This study focused on the perceptions of instructors and employers in northeast Mississippi on their perceptions of the importance of soft skills in the workplace. A total of 33 instructors and employers completed the Survey for Instructors and Employers through the Snap online survey software. Demographic data were collected from the sample groups as well as their perceptions of 25 soft skills that may be necessary in the workplace. The responses for the soft skills questions were recorded using a four-point

Likert-type scale. In addition to these soft skills, the respondents listed eight other skills that they considered necessary.

The data collected were analyzed using SPSS software. The Cronbach's alpha test for reliability was used to test the reliability of the survey. The Levene's Test for Equality of Variance, a *t*-test for independent means, an analysis of variance (ANOVA), and descriptive data were used to analyze the data.

A statistically significant difference using a 0.05 alpha level was found for four of the 25 soft skills in question on this survey. For these four, "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately," instructors placed a higher importance than employers did. All of the instructors perceived "listens effectively" to be an extremely important soft skill.

The data collected in this study showed that information technology instructors in northeastern Mississippi perceived the soft skills listed on the Survey for Instructors and Employers to be important in the workplace. Only three soft skills were answered by a small percentage to be not important at all. The data showed that a significant difference existed between the perceptions of instructors and employers on soft skills in the workplace for four of the soft skills in question on this survey. These soft skills were "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately." These findings showed that instructors placed a higher importance on these soft skills than employers did. Employers are more interested in the soft skills that the job requires to accomplish the task at hand.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study compared the perceptions of community college information technology instructors with employers from five community college districts of northeast Mississippi in the area of soft skills in the workplace. This chapter presents the summary, conclusions, and recommendations of this study. The topics in this chapter include purpose and procedure, research summary, conclusions, and recommendations.

Soft skills in the workplace is an emerging theory that continues to evolve as the workplace changes. This study provides a starting point for analyzing perceptions of the soft skills that are needed in the workplace. The findings of this study may be used by instructors to evaluate what soft skills need to be taught and by employers to understand what soft skills have been taught at the community college level.

Purpose and Procedure

The purpose of this study was to investigate the perceptions of information technology (IT) instructors at five community colleges in northeast Mississippi and employers in the same community college districts on which soft skills are needed in the workplace. There has been limited research about which soft skills are relevant to employers who may hire graduates in the IT field and whether these skills are being

presented in IT classrooms at the community college level. This study addressed this gap in the research by examining the differences in perceptions of IT instructors and employers who may hire IT graduates.

The target populations for this study were IT instructors at five community colleges in northeast Mississippi (*N*=19), and the employers from counties within the five community college districts (*N*=1,112) that were identified as such through the MNI Manufacturers' News database. The entire population of instructors was included while a sample of the employers was selected from the MNI database by systematic sampling with a random start. The Soft Skills Survey for Instructors and Employers was piloted at another community college in Mississippi from April 15 through May 15, 2009. The survey period for this study began on June 10, 2009, and concluded on August 23, 2009.

The entire population of 19 instructors and a sample group of 40 employers were sent a link to the online survey through the Snap survey software. Of the 59 surveys sent, 11 were undeliverable leaving 48 legitimate total contacts. Two of the returned surveys were incomplete and were not used. A total of 16 surveys were completed by instructors, and 17 were completed by employers totaling 33 completed surveys. The combined response rate was 68.75%.

Research Summary

This study sought to investigate the perceptions of soft skills in the workplace between IT instructors at five community colleges and employers within the same community college districts. This study examined three research questions.

Research question 1: What are the perceptions of community college information technology instructors in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace?

Research question 1 was addressed by sending the Soft Skills Survey for Employers and Instructors to information technology instructors in community college districts of northeastern Mississippi in order to obtain their perceptions of soft skills in the workplace. Sixteen useable surveys were returned from this group. These surveys were analyzed using frequency distributions, standard deviations, confidence intervals, *t*-tests, and an analysis of variance to compare the responses. Of the soft skills listed, instructors responded with a mean of 97.988 that these soft skills were either important or extremely important.

Research question 2: What are the perceptions of employers who may employ information technology graduates in the northeastern counties of Mississippi regarding which soft skills are needed in the workplace?

Research question 2 was addressed by sending the Soft Skills Survey for Employers and Instructors to employers in five community college districts of north Mississippi in order to obtain their perceptions of soft skills in the workplace. Seventeen useable surveys were received from this group. These surveys were analyzed using frequency distributions, standard deviations, confidence intervals, *t*-tests, and an analysis of variance to compare the responses. Of the soft skills listed, employers responded with a mean of 90.368 that these soft skills were either important or extremely important.

Research question 3: Is there a significant difference between the perceptions of the importance of soft skills of community college information technology instructors in the northeastern counties of Mississippi and of the employers of the same area?

Research question 3 was addressed by sending the Soft Skills Survey for Employers and Instructors to instructors and employers in five community college districts of northeastern Mississippi in order to obtain their perceptions of soft skills in the workplace. A total of 33 completed surveys were returned from these two groups. These surveys were analyzed using frequency distributions, standard deviations, confidence intervals, *t*-tests, and an analysis of variance to compare the responses. A statistically significant difference at the 0.05 alpha level was noted between these two groups for four of the soft skills on the survey. These soft skills included the following: "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately." Instructors placed more importance on these four soft skills than employers did.

Conclusions

The findings from this study revealed that there was a statistically significant difference between the perceptions of IT instructors and employers in northeastern Mississippi for four of the soft skills listed on the Soft Skills Survey for Instructors and Employers. These soft skills were "communicates clearly verbally," "communicates clearly in writing," "adapts to changes easily," and "dresses appropriately." Based on these findings, two main conclusions were drawn for this study.

First, the group of instructors placed a higher importance on these soft skills than the group of employers did. These soft skills enable a student to excel in the classroom. These are also soft skills that are more necessary in the interviewing and hiring stages of employment rather than being solely employability skills. Instructors teach skills that will enable students to be hired. These skills include interviewing skills such as communication skills, adapting a resume to suit different types of industries, and dressing appropriately for an interview or an office setting. Instructors place more value on these skills, because they understand that students will be able to use these skills in the working world.

Second, employers realize that employees with good soft skills are important, but these four soft skills do not have a big impact on the profitability of a company. Employers want employees who have the skills needed to produce high quality work. The employers participating in this survey viewed other soft skills as more important in the workplace than these four.

This study concluded that the soft skills listed on the Survey for Instructors and Employers are perceived as important or extremely important by the majority of instructors and employers who participated in this study. The survey results cannot be generalized to other populations or other geographic regions.

Recommendations for Further Research

Based on the findings of this study, future research is needed to determine the importance of soft skills in the workplace. Recommendations for further research include the following:

1. Examine the differences in perception of the importance of soft skills in the workplace between the community college instructors and community college students.
2. Compare the differences in perception of the importance of soft skills in the workplace among educators in the middle school, secondary, and postsecondary levels, and within different educational programs and the amount of time each educator devotes to teaching soft skills in the workplace.
3. Investigate the differences in perception of the importance of soft skills in the workplace between employers and new hires in differing businesses and industries.
4. Study the differences in the soft skills that are taught at different educational levels and how these soft skills are incorporated into the curriculum.
5. Use the Soft Skills Survey for Instructors and Employers to compare IT instructors and employers perceptions of the importance of soft skills in different regions of the United States.

REFERENCES

Ackerman, P. L. (1988). Determinants of individual differences during skill acquisition: Cognitive abilities and information processing. *Journal of Experimental Psychology: General, 117*, 288–318.

American Diploma Project. (2004). *Ready or not: creating a high school diploma that counts*. Retrieved June 12, 2008 from http://www.achieve.org/files/ADPreport.pdf

Bailey, J. L., & Stefaniak, G. (1999). Preparing the information technology workforce for the new millennium. *ACM SIGCPR Computer Personnel, 20*(4), 4–15.

Ballantyne, C. (2000, November). *Why survey online? A practical look at issues in the use of the Internet for surveys in higher education*. Paper presented at the annual conference of the American Evaluation Association, Honolulu, HI.

Barker, J. (2000). School counselors' perceptions of required workplace skills and career development. *Professional School Counseling, 4*(2), 134–139.

Baud, D., & Solomon, N. (Eds.). (2001). *Work-based learning: A new higher education?* Buckingham, UK: The Society for Research into Higher Education & Open University Press.

Bloch, D. P. (1996). Career development and workforce preparation: Educational policy versus school practice. *The Career Development Quarterly, 45*(1), 20–40.

Blundell, R., Dearden, L., & Meghir, C. (1996). *The determinants and effects of work related training in Britain*. London: Institute for Fiscal Studies.

Brauchle, P. E., & Azam, M. S. (2004). Factorial invariance of the occupational work ethic inventory (OWEI). *Journal of Vocational Education Research, 29*(2).

Brenner, C., Brownstein, B., Dresser, L., & Leete, L. (2001, January). *Staircases and treadmills: The role of labor market intermediaries in placing workers and fostering upward mobility*. Paper presented at the annual meeting of the Industrial Relations Research Association, New Orleans, LA.

Brown, B. L. (1997). Keeping pace with workplace trends. *Techniques: Making Education & Career Connections, 72*(7), 70.

Brown, B. L. (2002). *Generic skills in career and technical education: Myths and realities* (Report No. 22). Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education. (ERIC Document Reproduction Service No. ED472363)

Brown, P., Hesketh, A., & Williams, S. (2003). Employability in a knowledge-driven economy [1]. *Journal of Education and Work, 16*(2), 107–127.

Buhler, P. M. (2001). Managing in the new millennium: The growing importance of soft skills in the workplace. *Supervision, 62*(6), 13–15.

Cadrain, D. (2005). Workplace readiness credential tested. *HR Magazine, 50*(5), 30–32.

Caudron, S. (1999). The hard case for soft skills. *Workforce, 78*(7), 60–67.

Carnevale, A. P., & Carnevale, E. S. (1994). Growth patterns in workplace training. *Training & Development, 48*(5), 62–68.

Carnevale, A. P., Gainer, L. J., Meltzer, A. S., & Holland, S. L. (1988). Workplace basics: The skills employers want. *Training & Development Journal, 42*(10), 22–30.

Cline, S. (2005, April 1). Soft skills make the difference in the workplace. *Colorado Springs Business Journal.* Retrieved August 1, 2008, from http://www.csbj.com/story.cfm?id=8130&searchString=soft%20and%20skills

Computing Technology Industry Association, Inc. (2008). *CompTIA A+ and your career*. Retrieved August 8, 2008, from http://certification.comptia.org/a/career.aspx

Custer, R. L., & Claiborne, D. M. (1992). Critical skills clusters for vocational education. *Journal of Vocational Education Research, 17*(4), 15–40.

Datta, R. C., Pellissery, S., & Paul, B. (2007). *Employability: Concepts, indicators, and practices* (Atlmri Discussion Paper). Mumbai, India: Tatta Institute of Social Sciences.

Dannreuther, C., & Petit, P. (2006, June). Post-Fordism, beyond national models: The main challenges for regulation theory. *Competition & Change, 10*(2), 100–112.

Echternacht, L., & Wen, L. M. (1997). The importance of workplace basics competencies (SCANS) as perceived by beginning business teachers and experienced business teachers. *College Student Journal, 31*(1) 37–44.

Fleishman, E. A. (1982). Systems for describing human tasks. *American Psychologist, 37,* 821–834.

Flood, G. (2007, January). Hi-tech soft skills. *IT Training*. Retrieved June 11, 2008 from Business Source Complete Database.

Foundation for an Independent Tomorrow. (n.d.). Retrieved September 17, 2008, from http://www.lasvegasfit.com

Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education* (6th ed.). New York: McGraw-Hill.

Future requirements: Workforce skills. (1993). *Journal of Educational Research, 86*(5), 293–295.

Future workforce is ill-prepared, report says. (2006, December). *Professional Safety, 51*(12), 6.

Gamble, B. (2006). Teaching life skills for student success. *Techniques: Connecting Education & Careers, 81*(6), 40–41.

Gay, L. R. (1996). *Educational Research*. Englewood Cliffs, NJ: Prentice Hall.

Gilmore, A. (2008, March). Educating to ensure soft skills. *Certification Magazine, 10*(3), 10–10.

Grummon, P. T. H. (1997). *Assessing students for workplace readiness* (Report No. 15). Berkeley, CA: National Center for Research in Vocational Education. (ERIC Document Reproduction Service No. ED404485)

Hamilton, S., & Hamilton, M. (1997). When is learning work-based? *Phi Delta Kappan, 78*(9), 676.

Hill, R. B., & Petty, G. C. (1995). A new look at selected employability skills: A factor analysis of the occupational work ethic. *Journal of Vocational Education Research, 20*(4), 59–73.

Hofstrand, R. (1996). Getting all the skills employers want. *Technologies: Making Education & Career Connections, 71*(8), 51.

Houghton, T., & Proscio, T. (2001). *Hard work on soft skills: Creating a "culture of work" in workforce development.* Philadelphia, PA: Public/Private Ventures. (ERIC Document Reproduction Service No. ED461737)

Hunt, E. B. (1995). *Will we be smart enough? A cognitive analysis of the coming workforce*. New York: Russell Sage Foundation.

Jacobs, J. (2005). Workforce development and the applied baccalaureate degree. *Community College Week, 18*(6), 4–5.

Jenkins, S., & Wills, P. (1981). Snap Surveys (Version 9) [Computer Software]. Portsmouth, NH: Survey Shop.

Judy, R. W., & D'Amico, C. (1997). *Workforce 2020: Work and workers in the 21st century.* Indianapolis, IN: Hudson Institute.

Kim, Y., Hsu, J., & Stern, M. (2006, Winter). An update on the IS/IT skills gap. *Journal of Information Systems Education, 17*(4), 395–402.

Krishnakumar, R. (2008, March 29–April 11). The skills boom. *Frontline: India's National Magazine, 25*(7).

Lankard, B. A. (1990). *Employability—the fifth basic skill* (ERIC Digest No. 104). Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education. (ERIC Document Reproduction Service No. ED325659)

Lerman, R. I., Riegg, S. K., & Salzman, H. (2000). *The role of community colleges in expanding the supply of information technology workers.* Washington, DC: The Urban Institute for the U.S. Department of Labor, Office of the Assistant Secretary for Policy, under DOL Contract No. J-9-M-5-0048.

Lewis, A. C. (2004). Strengthening the high school diploma. *Tech Directions, 63*(9), 5–6.

Martin, A. J., Milne-Home, J., Barrett, J., Spalding, E., & Jones, G. (2000). Graduate satisfaction with university and perceived employment preparation. *Journal of Education and Work, 13*(2).

Marshall, R., & Tucker, M. (1992). *Thinking for a living: Education and the wealth of nations*. New York: Basic Books.

Mississippi Department of Employment Security. (2008). *Labor market information department, occupational employment projections.* Retrieved October 1, 2008, from http://mdes.ms.gov/wps/portal/#null

Moore, P. (1997). Teaching standards set for vocational education. *Tech Directions, 57*(1), 10.

Muffo, J. M., Sinclair, A., & Robson, V. (2003, May 20). *A comparison of web versus paper alumni surveys*. Paper presented at the Annual Forum of the Association for Institutional Research, Tampa, FL.

North, A. B., & Worth, W. E. (1998). Trends in advertised SCANS competencies: Technology, interpersonal, and basic communication job skills, 1992–1996. *Journal of Employment Counseling, 35*(4), 195–205.

Overtoom, C. (2000). *Employability skills: An update* (ERIC Digest No. 220). Columbus, OH: ERIC Clearinghouse on Adult, Career, and Vocational Education. (ERIC Document Reproduction Service No. ED445236).

Packer, A. H. (1992). Taking action on the SCANS report. *Educational Leadership, 49*(6), 27–31.

Poole, V. A., & Zahn, D. K. (1993). Define and teach employability skills to guarantee student success. *Clearing House, 67*(1), 55–59.

Powell, P. (2005). SkillsUSA showcases future workforce. *Air Conditioning, Heating & Refrigeration News, 225*(11), 1–30.

Powell, S. (2007, November 29). Skills for success. *Money Marketing.* Retrieved May 15, 2008, from Business Source Complete Database.

Pucel, D. J. (1998, December). *The new vision of high school vocational education: Implications for research.* Paper presented at the Annual Meeting of the American Vocational Research Association, New Orleans, LA.

Pucel, D. J. (1999, October). *The changing roles of vocational and academic education in future high schools.* Paper presented at the Central Educational Science Research Institute, Beijing, China.

Raj, R. (2008, March). Business negotiations: A "soft" perspective. *ICFA Journal of Soft Skills, 2*(1), 7-22.

Ravenscroft, N., & Gilchrist, P. (2005, July). Post-Fordist restructuring and vocational training in sport in the UK. *Managing Leisure, 10*(3), 166–183.

Raybould, J., & Anderson, B. (2005). Are graduates equipped with the right skills in the employability stakes? *Industrial and Commercial Training, 37*(5), 259–64.

Reddick, E. (2008, January 14). Soft skills: Your key advantage in the marketplace. *Connect Magazine*, Retrieved March 3, 2008, from http://www.connect-utah.com/article_print.asp?r=2679&iid=63&sid=4&bsc=

Research and Curriculum Unit. (2006). *Postsecondary computer information systems technology*. Mississippi State, MS: Research and Curriculum Unit.

Resnick, L. B., & Wirt, J. G. (1996). *Linking school and work: Roles for standards and assessment.* San Francisco, CA: Josey-Bass.

Roberts, B. (2008, January). Hard facts about soft skills e-learning. *HR Magazine, 53*(1), 76–78.

Robinson, J. P. (2000, September). What are employability skills? *The Workplace: A Fact Sheet, 1*, 1–3.

Rotundo, M., & Sackett, P. R. (2004). Specific versus general skills and abilities: A job level examination of relationships with wage. *Journal of Occupational and Organizational Psychology, 77*(2), 127–148.

Selz, N. (1980). *The teaching of employability skills: Who's responsible?* The National Center for Research in Vocational Education. Columbus, OH: The Ohio State University.

Shaw, G. (2008, January 26). Wanted: Techies with people skills. *The Financial Post.* Retrieved August 1, 2008, from http://www.financialpost.com/story.html?id=272621

Smith, S. M. (2002). The skill building challenge: Preparing a bridge for the workforce skills gap. *Meeting the demand: Teaching "soft" skills* (pp.1–11). Little Rock, AR: Delta Pi Epsilon Society.

Snell, S., Snell-Siddle, C., & Whitehouse, D. (2003). Gearing up for professional practice: Enhancing soft skills for IS project students. *Proceedings of the 16th Annual NACCQ*, Palmerston North, New Zealand, 419–422.

Soetan, A. (2008, March 11). Face up to the hard facts of soft skills. *Computer Weekly*, 16.

Soft skills for hard times. (2004, Fall). *Leader to Leader, 2004*(34), 59.

Sukhoo, A., Barnard, A., Eloff, M., Van der Poll, J., & Motah, M. (2005, January). Accommodating soft skills in software project management. *Issues in Informing Science & Information Technology, 2*, 691–703.

Szabo, J. C. (1991). Finding the right workers. *Nation's Business, 79*(2), 16–23.

Szabo, J. C. (1993). Training workers for tomorrow. *Nation's Business, 81*(3), 22–32.

Thomas, M. (2001, September 2). Who's not working and why: Employment, cognitive skills, wages, and the changing U.S. labour market. *Capital & Class*. Retrieved October 1, 2008, from Academic Search Premier Database.

United States Census Bureau. (2005, January). *We the people: Women and men in the United States.* Retrieved September 22, 2008, from http://www.census.gov/prod/2005pubs/censr-20.pdf

United States Department of Labor. (1991). *What work requires of schools: A SCANS report for America 2000*. Retrieved October 30, 2008, from http://wdr.doleta.gov/SCANS/whatwork/whatwork.pdf

Urciuoli, B. (2008, May). Skills and selves in the new workplace. *American Ethnologist, 35*(2), 211–228.

Wilhelm, W. J. (1999). *A Delphi study of desired entry-level workplace skills, competencies, and proof of achievement products.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Quebec.

Wilhelm, W. J. (2002). Research on workplace skills employers want. *Meeting the demand: Teaching "soft" skills* (pp.12–33). Little Rock, AR: Delta Pi Epsilon Society.

Zinser, R. (2003). Developing career and employability skills: A U.S. case study. *Education & Training, 45*(7), 402–410.

APPENDIX A

THE FOUNDATION FOR AN INDEPENDENT TOMORROW (FIT) SOFT SKILLS SURVEY

Please answer the questions below.

01. What type of position do you most often need to fill in a 12-month period?
Administrative/clerical Customer Service Sales Managerial Other

02. What type of organization do you represent?
Services Products Manufacturing Non-Profit Other

03. Number of years since organization has been operational
1-3 years 4-6 years 7-10 years 10+ years

04. Number of total employees in organization
0-3 4-10 11-25 26-50 51+

Please indicate how much you value the level of importance of each skill listed below.
1 = Not At All Important
2 = Slightly Important
3 = Important
4 = Extremely Important

05. Able to verbally communicate clearly in English	1 2 3 4
06. Able to communicate clearly in writing	1 2 3 4
07. Understands and practices good telephone etiquette	1 2 3 4
08. Self-motivated	1 2 3 4
09. Follows through on commitments	1 2 3 4
10. Able to keyboard quickly and accurately	1 2 3 4
11. Able to write a formal business letter	1 2 3 4
12. Able to adapt to changes easily	1 2 3 4
13. Exhibits leadership among peers	1 2 3 4
14. Able to work under pressure	1 2 3 4
15. Asks appropriate questions	1 2 3 4
16. Able to learn quickly	1 2 3 4
17. Attention to detail	1 2 3 4
18. Time management	1 2 3 4
19. Displays self-confidence	1 2 3 4
20. Exhibits high energy level	1 2 3 4
21. Appropriate appearance through clothes selection, hair style	1 2 3 4
22. Comfortable using a computer	1 2 3 4
23. Comfortable learning new computer programs	1 2 3 4
24. Comfortable using or learning to use fax and copy machines	1 2 3 4
25. Displays good manners	1 2 3 4
26. Has effective listening skills	1 2 3 4

27. Able to multitask effectively 1 2 3 4
28. Able to read instructions and comprehend them accurately 1 2 3 4
29. Able to exhibit creative problem solving 1 2 3 4

30. Are there any other soft skills you seek when hiring? If so, please list them.

OPTIONAL- If you would consider participating in a follow-up discussion regarding soft skills, please complete the information below:

Name _____

Organization Name _____

E-mail Address _____

Contact Phone Number _____

Thank you for your time and participation!

APPENDIX B

THE SOFT SKILLS SURVEY FOR INSTRUCTORS AND EMPLOYERS

Soft Skills Survey for Instructors and Employers

1.1. I understand that my participation in this study is voluntary. I understand that I may withdraw from this study at any time and that I may refuse to answer any specific question that may be asked. I verify that I am at least 18 years of age. Submission of this survey indicates my willingness to participate in this study. I understand that the use of the data collected is for research purposes only. I understand that if I have questions or concerns about this survey, I may contact the administrators of this study at the contact information provided in the invitation e-mail.
□ Agree
□ Disagree

1.2. Are you an instructor or an employer?
□ Instructor
□ Employer

Instructor questions:

1.3. What classes do you teach?

1.4. How many years of teaching experience do you have?
1–3 years 4–6 years 7–10 years 10+ years

1.5. What types of organizations hire your students?
Sales Services Manufacturing Non-Profit Other

Employer questions:

1.6. What type of organization do you represent?
Sales Services Manufacturing Non-Profit Other

1.7. Number of years your organization has been in operation
1–3 years 4–6 years 7–10 years 10+ years

1.8. Number of total employees in your organization
1–5 6–10 11–25 26–50 51–100 101–500 501+

Hard skills are the technical skills required in the workplace such as typing and using software or equipment. They are easy to observe and to quantify. Soft skills including communication, teamwork, problem solving, and conflict resolution are behaviors that are harder to measure and to teach. This survey is about your perceptions of the soft skills that are needed in the workplace.

2. Please indicate how much you value the level of importance of each skill listed below.
1-Not At All Important 2-Slightly Important 3-Important 4-Extremely Important

2.1	Communicates clearly verbally	1 2 3 4
2.2	Communicates clearly in writing	1 2 3 4
2.3	Reads instructions and comprehends them accurately	1 2 3 4
2.4	Listens effectively	1 2 3 4
2.5	Understands and practices good telephone etiquette	1 2 3 4
2.6	Is able to write a formal business letter	1 2 3 4
2.7	Is self-motivated	1 2 3 4
2.8	Exhibits creative problem solving	1 2 3 4
2.9	Adapts to changes easily	1 2 3 4
2.10	Exhibits leadership among peers	1 2 3 4
2.11	Works as a team player	1 2 3 4
2.12	Displays self-confidence	1 2 3 4
2.13	Displays good manners	1 2 3 4
2.14	Exhibits high energy level	1 2 3 4
2.15	Works well under pressure	1 2 3 4
2.16	Asks appropriate questions	1 2 3 4
2.17	Learns quickly	1 2 3 4
2.18	Pays attention to detail	1 2 3 4
2.19	Has good time management skills	1 2 3 4
2.20	Follows through on commitments	1 2 3 4
2.21	Dresses appropriately	1 2 3 4
2.22	Is able to multitask effectively	1 2 3 4
2.23	Works well with cultural diversity	1 2 3 4
2.24	Motivates others	1 2 3 4
2.25	Exhibits good negotiation skills	1 2 3 4

2.26 Are there any other soft skills you seek when hiring? If so, please list them.

Thank you for your time and participation!

APPENDIX C

INSTITUTIONAL REVIEW BOARD (IRB) APPROVAL LETTER

Mississippi State University
Office of Regulatory Compliance
Post Office Box 6223
Mississippi State, MS 39762

Compliance Division
Administrative Offices
Animal Care and Use (IACUC)
Human Research Protection
Program (IRB)
1207 Hwy 182 West
Starkville, MS 39759
(662) 325-3496 - fax

Safety Division
Biosafety (IBC)
Radiation Safety
Hazardous Waste
Chemical & Lab Safety
70 Morgan Avenue
Mississippi State, MS 39762
(662) 325-8776 - fax

http://www.orc.msstate.edu
compliance@research.msstate.edu
(662) 325-3294

June 8, 2009

Suzanne Tribble
Research and Curriculum Unit
Mail Stop 9636

RE: IRB Study #09-062: The Importance of Soft Skills in the Workplace as Perceived by Community College Instructors and Industries

Dear Ms. Tribble:

The above referenced project was reviewed and approved via administrative review on 4/7/2009 in accordance with 45 CFR 46.101(b)(2). Continuing review is not necessary for this project. However, any modification to the project must be reviewed and approved by the IRB prior to implementation. Any failure to adhere to the approved protocol could result in suspension or termination of your project. The IRB reserves the right, at anytime during the project period, to observe you and the additional researchers on this project.

Please note that the MSU IRB is in the process of seeking accreditation for our human subjects protection program. As a result of these efforts, you will likely notice many changes in the IRB's policies and procedures in the coming months. These changes will be posted online at http://www.orc.msstate.edu/human/aahrpp.php.

Please refer to your IRB number (#09-062) when contacting our office regarding this application.

Thank you for your cooperation and good luck to you in conducting this research project. If you have questions or concerns, please contact me at cwilliams@research.msstate.edu or call 662-325-5220.

Sincerely,

Christine Williams
IRB Compliance Administrator

cc: James Ed Davis

APPENDIX D

PERMISSION LETTER FROM THE PRESIDENT OF THE MISSISSIPPI GULF COAST COMMUNITY COLLEGE

Suzanne Tribble

From: joan haynes [joan.haynes@mgccc.cc.ms.us]
Sent: Wednesday, February 18, 2009 7:49 AM
To: Suzanne Tribble
Cc: brock clark; beverly clark; cheryl bond; jason pugh; mary graham; susan scaggs
Subject: RE: IT Instructors Survey

Good morning Suzanne! Executive Council has reviewed and approved your request to pilot your survey with our IT instructors. There have been some updates to our IT faculty since your review of our website. Here are the current IT faculty members.

Jefferson Davis Campus
Brian Burrous (brian.burrous@mgccc.edu)
Angela Bryan (angela.bryan@mgccc.edu

Jackson County Campus
Robin Hayes (robin.haynes@mgccc.edu)
Tom Whalen (thomas.whalen@mgccc.edu)

Perkinston Campus
Allen Lee (allen.lee@mgccc.edu)
Ralph King (ralph.king@mgccc.edu)
William Murray (william.murray@mgccc.edu)
Sadie Hebert (sadie.hebert@mgccc.edu)

It would be best for you to contact these faculty through their immediate supervisors. They report to the Assistant Deans for Career and Technical Education on their campuses. Brock Clark (brock.clark@mgccc.edu; 228-497-7634)will be your contact at Jackson County, Dr. Beverly Clark (beverly.clark@mgccc.edu; 228-896-2512) will be your contact at the Jefferson Davis campus, and Cheryl Bond (cheryl.bond@mgccc.edu; 601-928-6213) will be your contact on the Perkinston Campus. I have reviewed this information with the Assistant Deans and they are anticipating you contacting them. Please let me know if I can be of further assistance and good luck in your research.

Joan D. Haynes, Ph.D.
Vice President, Instruction and Student Services
MGCCC/Central Office
P.O. Box 609
Perkinston, MS 39573
601-928-6233 (phone)
601-528-8495 (fax)
joan.haynes@mgccc.edu
www.mgccc.edu

APPENDIX E

PERMISSION LETTERS FROM THE PRESIDENTS OF NORTHEAST MISSISSIPPI COMMUNITY COLLEGE, ITAWAMBA COMMUNITY COLLEGE, EAST CENTRAL COMMUNITY COLLEGE, EAST MISSISSIPPI COMMUNITY COLLEGE, AND MERIDIAN COMMUNITY COLLEGE

Suzanne Tribble

From: Allen, Johnny L. [jlallen@nemcc.edu]
Sent: Monday, April 20, 2009 7:45 AM
To: Suzanne Tribble
Subject: Research approval

Follow Up Flag: Follow up
Flag Status: Flagged

I approve of your use of Mark Nichols and Nick Newell as part of the data collection for your dissertation.

Good luck with your studies,

Johnny Allen

ITAWAMBA COMMUNITY COLLEGE

Office of the President

April 23, 2009

Ms. Suzanne Tribble
Doctoral Candidate
Mississippi State University
Post Office Drawer DX
Mississippi State, MS 39762-5671

Dear Ms. Tribble:

This letter is to confirm that you have permission to conduct research on the perceptions of community college instructors and area employers about the importance of soft skills that are needed in the workplace. You may send our Information Technology instructors, Tanya Cox, Gayle Hillhouse, Delena Hukle, Doris McCreary, Cindy Layman and Jason Guntharp the requested survey as well as any other instructors who may like to participate.

I wish you much success as you continue your doctoral studies at Mississippi State University.

Sincerely,

David C. Cole, Ph.D.
President

602 West Hill Street • Fulton, MS 38843 • 662-862-8001 *phone* • 662-862-8005 *fax*

EAST CENTRAL COMMUNITY COLLEGE

P. O. BOX 129
DECATUR, MISSISSIPPI 39327-0129
Telephone: 601-635-6200

Fax: 601-635-4011
Toll Free:1-877-462-3222
E-mail: psutphin@eccc.edu

OFFICE OF THE PRESIDENT

May 11, 2009

Ms. L. Suzanne Tribble
Research Associate III
Research & Curriculum Unit for Workforce Development
P.O. Drawer DX
Mississippi State, MS 39759

Dear Ms. Tribble:

I am approving your request to survey the Information Technology instructors at ECCC for your dissertation research. I will forward a copy of this letter to the instructors listed in your letter.

Thank you for including ECCC in your research project.

Sincerely,

Phil A. Sutphin, Ed.D.
President

PAS:chg

Cc: Ms. Deborah Hammons
Dr. Lisa McMillin
Mr. Thomas Fortenberry
Mr. Kelly Cluff
Ms. Stella Dickerson
Ms. Brenda Johnson

ECCC
WITH YOU IN MIND

Suzanne Tribble

From: Andrea Scott Mayfield [ascott@eastms.edu]
Sent: Friday, April 24, 2009 12:48 PM
To: Suzanne Tribble
Cc: Andrea Scott Mayfield; Andrew B. Sesser; Sandra Coleman
Subject: Doctoral survey

Hi Suzanne!
Dr. Young received your letter regarding you desire to administer a short online survey to EMCC Information technology instructors as part of your dissertation study. Your request has been approved. The following instructors teach LAN:
Brandon Sesser
Sandra Coleman

Susan Morgan is an academic instructor teaching computer concepts
Mike Tvarkunas is the Director for IT and does not teach

I wish you luck with your study.

Dr. Andrea Scott Mayfield
District Director of Institutional Research & Effectiveness
SACS Liaison
Distance Learning
East Mississippi Community College
Phone: 662-476-5025
FAX: 662-476-5276 or 5058

Take A Step Towards Excellence Video: http://www.eastms.edu/takeastep
Check out the Public QEP Diary page!
Employees can view Intranet QEP Page & IE/IR Webpage
Employee Blackboard & Wimba Tutorials

MERIDIAN COMMUNITY COLLEGE

Office of the President

Dr. Scott D. Elliott

May 27, 2009

Suzanne Tribble
P.O. Drawer DX
Mississippi State, MS 39759

Dear Ms. Tribble,

By way of this letter, please know that you have my permission to conduct research at Meridian Community College relative to your dissertation topic.

I apologize for the delay in getting you this letter. I have been rather seriously ill over the last month, and simply have not been in the office to correspond with anyone.

Best wishes on your research,

Scott D. Elliott

C: Brenda Arnsdorff, Curtis Beckman, Joy Suggs

910 Highway 19 North Meridian, Mississippi 39307
* 601-483-8241 (Telephone) * 601-481-1305 (Fax) * [redacted] (E-mail) *

APPENDIX F

INVITATION E-MAIL TO INSTRUCTORS

Dear {Name}:

I am a graduate student at Mississippi State University currently collecting data for my dissertation. The topic of my dissertation concerns the perceptions of employers and instructors on the soft skills needed in the workplace. I need your help.

As an educator you know the importance of educational research. With this survey I am hoping to collect data that will help me answer questions about how instructors and employers perceive workplace soft skills. Your participation is crucial to the successful outcome of this study and is very much appreciated.

If you would, please take a few minutes of your time and complete this survey. The data collected will be used for research purposes only. No personal data will be collected. It is completely confidential.

If you have any questions or concerns, please feel free to contact my dissertation director, Dr. Ed Davis, my IRB administrator, Christine Williams, or me.

Thank you in advance for your help.

Suzanne Tribble, Doctoral Candidate
Mississippi State University
E-mail: Suzanne.Tribble@rcu.msstate.edu
Phone: 662-325-2510

Dr. Ed Davis, Dissertation Director
E-mail: jed11@colled.msstate.edu
Phone: 662-325-9258

Christine Williams, IRB Administrator
E-mail: cwilliams@research.msstate.edu
Phone: 662-325-5220

{surveylinkauto}

APPENDIX G

INVITATION E-MAIL TO EMPLOYERS

Dear {Name},

I am a graduate student at Mississippi State University currently collecting data for my dissertation. The topic of my dissertation concerns the perceptions of employers and instructors on the soft skills needed in the workplace. I need your help.

Your business was chosen at random to be a part of this educational research. Your participation is crucial to the successful outcome of this study and is very much appreciated.

If you would, please take a few minutes of your time and complete this survey. The data collected will be used for research purposes only. No personal data will be collected. It is completely confidential.

If you have any questions or concerns, please feel free to contact my dissertation director, Dr. Ed Davis, or me.

Thank you in advance for your help.

Suzanne Tribble, Doctoral Candidate
Mississippi State University
E-mail: Suzanne.Tribble@rcu.msstate.edu
Phone: 662-325-2510

Dr. Ed Davis, Dissertation Director
E-mail: jed11@colled.msstate.edu
Phone: 662-325-9258

Christine Williams, IRB Administrator
E-mail: cwilliams@research.msstate.edu
Phone: 662-325-5220

{surveylinkauto}

APPENDIX H

SAMPLE E-MAIL REMINDER

Dear Mr. Smith,

A few weeks ago an email was sent to you requesting your help with a survey about soft skills in the workplace. Your company, *Smith Brothers,* was chosen at random to be a part of the sample industries of your Mississippi Community College District.

This survey should only take a few minutes of your time. With this survey I am hoping to collect data that will help me answer questions about how instructors and employers perceive workplace soft skills. Here is the link again:
http://info.rcu.msstate.edu/survey/surveylogin.asp?k=1244669416xx

Your user name is this email address: smith@smithxx.com
There is no password, so this should be left blank.

If there is a problem with the link, or the survey, please let me know. I need the survey completed as soon as possible. Your responses are strictly confidential, and will be analyzed collectively with other responses.

I do appreciate your help with this.
Sincerely,

Suzanne Tribble
Doctoral Candidate
Mississippi State University
E-mail: Suzanne.Tribble@rcu.msstate.edu
Phone: 662-325-2510

Dr. Ed Davis, Dissertation Director
E-mail: jed11@colled.msstate.edu
Phone: 662-325-9258

Christine Williams, IRB Administrator
E-mail: cwilliams@research.msstate.edu
Phone: 662-325-5220